MacWEEK

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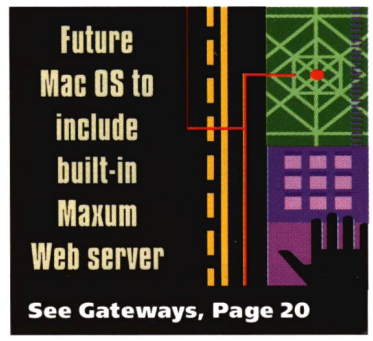
08.19.96 *The Newsweekly for Macintosh Managers* VOLUME 10 NUMBER 32



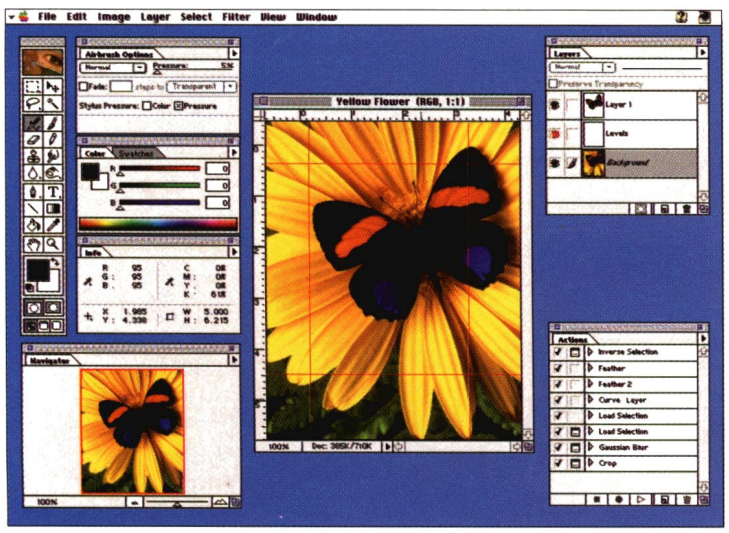
Photoshop 4 goes beta; big GUI changes ahead

By Kelly Ryer

Adobe Photoshop 4.0 has been sighted on the horizon.

Code-named Big Electric Cat, the new version of the image-editing application from Adobe Systems Inc. of Mountain View, Calif., has just entered beta testing, sources said. Users may get a sneak preview as early as September's Seybold San Francisco.

See Photoshop, Page 88



This artist's rendition shows Photoshop 4.0's guides and Navigation palette (lower left). The Actions palette (right) will help automate production tasks.

Microsoft vies for the hearts of Net vendors

By MacWEEK staff

Microsoft Corp. is getting cozy with a score of Mac Internet developers, and the Mac community is abuzz over the company's intentions.

Noting that the company sponsored booths for several Mac Internet developers during Macworld Expo, a recent press report suggested that Microsoft's motivation ranged from a fear of the U.S. Department of Justice to a big-hearted attempt to boost Apple's market share.

But according to Microsoft and several Mac Internet developers, the Redmond, Wash., company's intentions are closer to home. "We don't think about the Mac market share; that's Apple's problem," said John Ludwig, vice president of Microsoft's Internet Platform and Tools Division (IPTD).

See Microsoft, Page 84

NEWS ANALYSIS

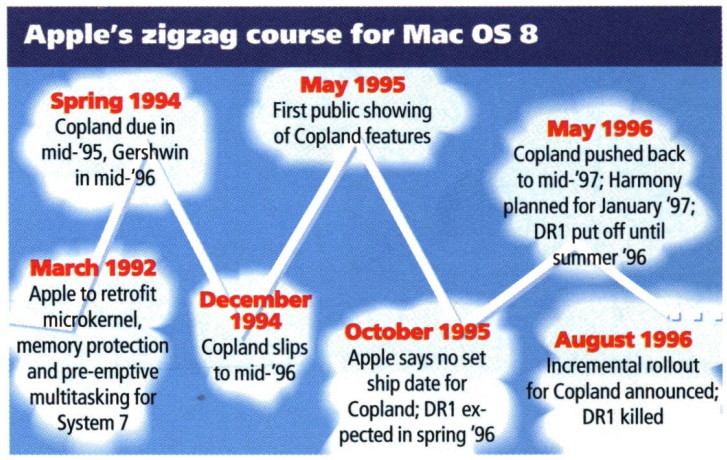
Copland core MIA in OS update plan

By Henry Norr

When Apple disclosed its Mac OS strategy earlier this month, it got the form and content in tight alignment: The new plan to deliver Mac OS 8 technologies in increments over several years was dribbled out in fragments over the course of Macworld Expo in Boston.

The decision to switch strategies was made just days before the show by CEO Gilbert Amelio and new Chief Technology Offi-

See Copland, Page 84


Apple's zigzag course for Mac OS 8
Spring 1994
Copland due in mid-'95, Gershwin in mid-'96
March 1992
Apple to retrofit microkernel, memory protection and pre-emptive multitasking for System 7
May 1995
First public showing of Copland features
December 1994
Copland slips to mid-'96
October 1995
Apple says no set ship date for Copland; DR1 expected in spring '96
May 1996
Copland pushed back to mid-'97; Harmony planned for January '97; DR1 put off until summer '96
August 1996
Incremental rollout for Copland announced; DR1 killed

Detailer takes guesswork out of 3-D texture maps

By Ben Long

Beta Test

Fractal Design Corp.'s Detailer is set to be a unique new product that will let you paint directly onto 3-D objects in real time. Currently in beta, it's aimed at traditional 3-D artists and 2-D graphic designers. We think it will be able to deliver to both audiences.

We reviewed a beta copy of the software; the final will ship in September for $449. While a few important features were missing, we were impressed with what we saw. Detailer gives experienced 3-D artists a fast and powerful method for creating texture maps and offers 3-D neophytes a fairly easy lesson in creating 3-D effects.

The program solves one of the most difficult tasks of texture-map creation: painting an image that will map correctly when

See Detailer, Page 86

Epic notebook to flip lid; PB aims at easy upgrades

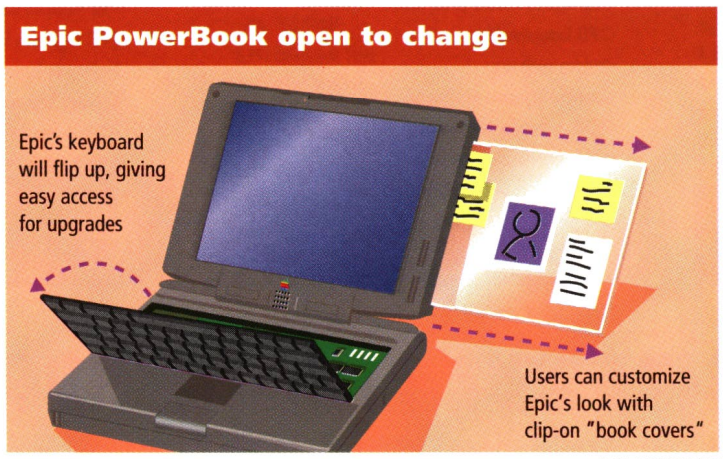
By David Morgenstern

This fall Apple will look to the midrange market to breathe new life into its sagging PowerBook lines. Sources said a new system, code-named Epic, will let users easily customize and upgrade their systems.

Expected for release in late fall, Epic's 117-MHz PowerPC 603e processor will be housed in a socketed package, allowing users as well as Apple to add faster processors, according to sources.

Analysts said socketed proces-

See Epic, Page 86


Epic PowerBook open to change
Epic's keyboard will flip up, giving easy access for upgrades
Users can customize Epic's look with clip-on "book covers"

JOHN FARNSWORTH

MS Office due for remodeling in summer '97

By John Poultney

Microsoft Office is heading for a major upgrade next summer. The update, to be called Office 97, will focus on improving performance, maintaining cross-platform feature parity, and implementing key Apple and Internet technologies.

Next year's suite will update the current Version 4.2 with features derived from user requests, said Dave Meltzer, group manager for Macintosh applications at Redmond, Wash.-based Microsoft Corp. The company said 80 percent of the suite will be built from cross-platform core code, giving the Mac version more of the features that will be in Office 97 for Windows, which is due in

See Office, Page 88

NEWSPAPER PERIODICALS

THE COMPANY THAT BROUGHT YOU FAST AND WICKED FAST NOW BRINGS YOU INSANELY FAST.

MacWEEK MacUser HOT PICK BOSTON·96 BEST of SHOW

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INTRODUCING THE FASTEST DESK

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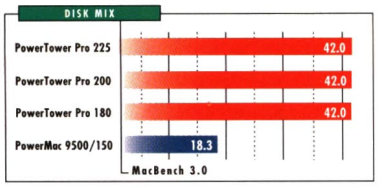
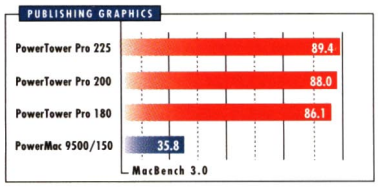
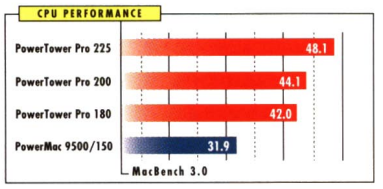
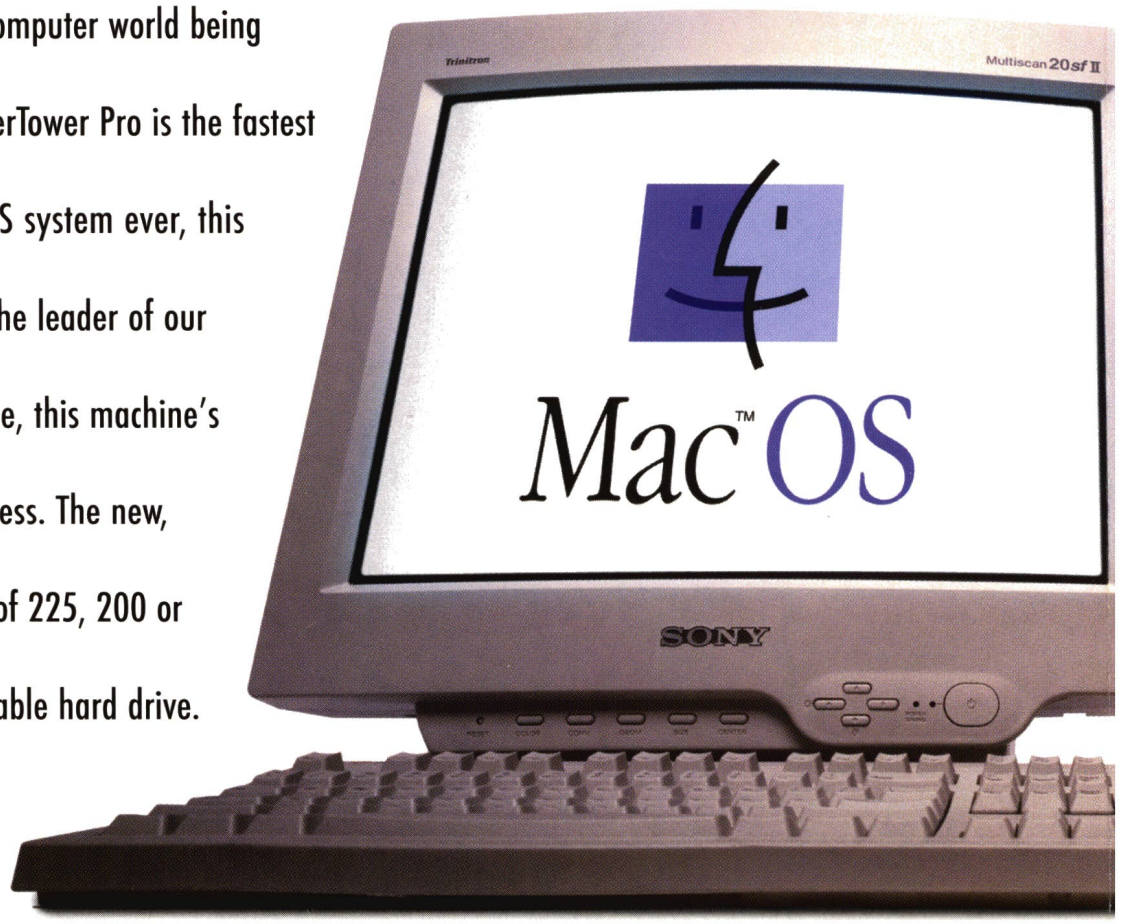






A huge 1 MB Level 2 cache. Dizzying 8X CD-ROM. Dual (fast internal 10 MB/second) SCSI. 8 DIMM slots.



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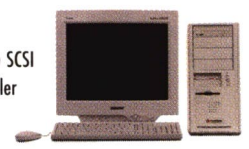

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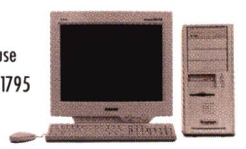

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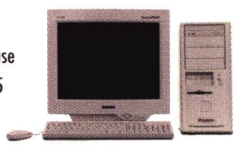

PowerTower Pro 180 Starter
180MHz PowerPC 604e Processor
- 16 MB RAM (1 GB Max)
- 2 GB 7200 RPM AV Hard Drive
- 8X CD-ROM Drive
- 1 MB Level 2 Cache
- IMS Twin Turbo 128M graphics accelerator with 8MB VRAM
- 6 PCI Expansion Slots
- Interleaved Memory
- 9 Drive Bays
- Dual (Fast 10 MB/Sec) SCSI
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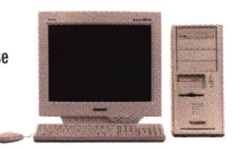

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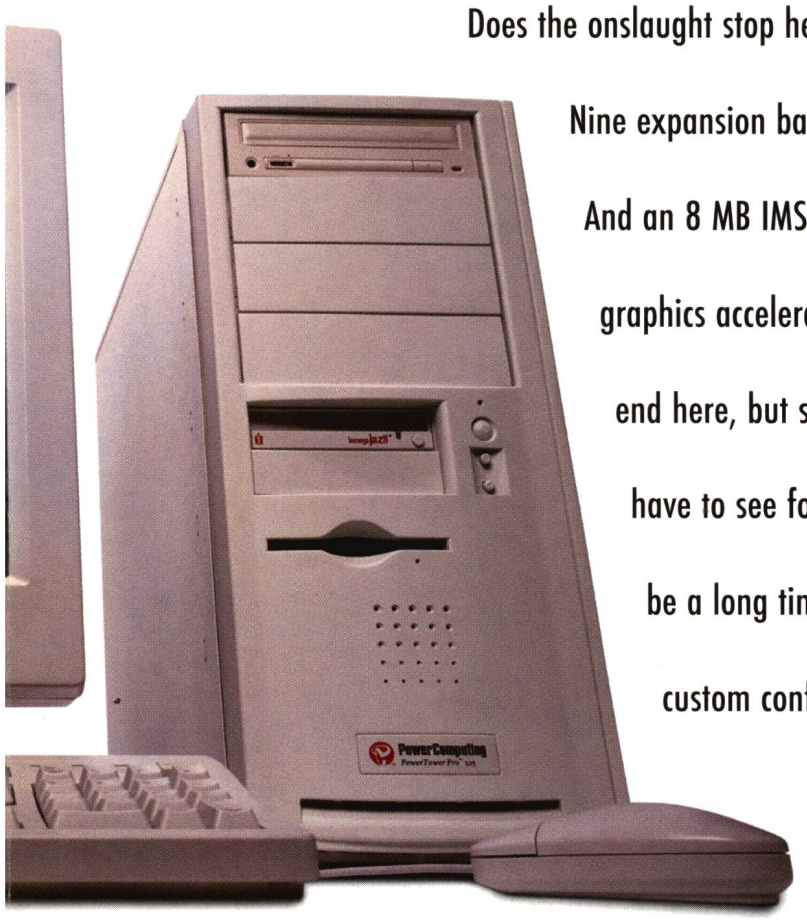
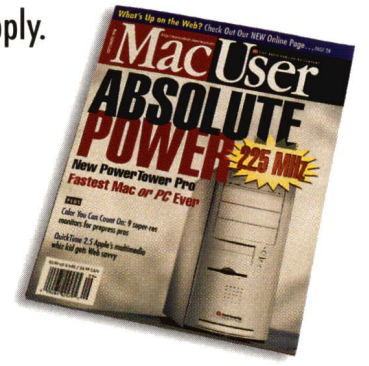


Does the onslaught stop here? No! Dual processor capability. Six PCI slots. Nine expansion bays. A 300w power supply. And an 8 MB IMS Twin Turbo 128 bit graphics accelerator. The list doesn't end here, but some things you just have to see for yourself. Sure there will be followers, but it'll be a long time before anyone even gets close. Call now to custom configure your dream system.



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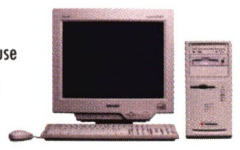

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AT DEADLINE

Navigator 3.0 is ready to roll, includes CoolTalk

Netscape Communications Corp. this week will ship Navigator 3.0. The new version of the company's Web browser adds CoolTalk, an Internet phone feature; LiveChat, an Internet Relay Chat client; the ability to display multiple columns of text; and support for QuickTime and Virtual Reality Modeling Language.

Netscape also announced its Internet Inbox, a technology for sending HTML-formatted e-mail that can be read offline. The company said several Internet content providers will soon begin mailing HTML articles to users.

Netscape Communications Corp. of Mountain View, Calif., is at (415) 528-2555 or (800) 638-7483; fax (415) 528-4140; http://home.netscape.com. □

Powersoft shows beta of native PowerBuilder 5

Powersoft Business Group, a division of Sybase Inc. of Emeryville, Calif., last week unveiled a beta version of PowerBuilder 5.0, a major rewrite of its popular object-oriented, client-server development tool.

The company said it expects to ship Version 5.0 by year-end. The update will run native on Power Macs, and Powersoft said Version 5.0 will offer improved memory management and require significantly less RAM on a Power Mac than PowerBuilder 4.0 does on 680x0 Macs.

According to the company, the update will use a version of Metrowerks Inc.'s CodeWarrior C/C++ compilers and linkers to generate compiled code in PowerBuilder.

Powersoft Business Group of Concord, Mass., can be reached at (508) 287-1500 or (800) 395-3525; fax (508) 369-3997; http://www.powersoft.com. □

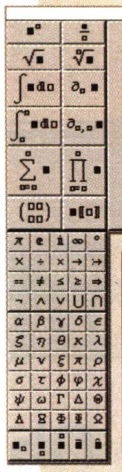
Apple sells Napa Valley data-processing plant

Apple last week sold its Napa, Calif., data-processing plant to SHL Systemhouse Inc., a subsidiary of MCI Communications Corp. of Ottawa.

Apple did not disclose how much it received for the 158,000-square-foot data-processing center but said it will pay $200 million over the next seven years to outsource the center's services, which include maintenance of Apple's worldwide computer networks and an internal help desk.

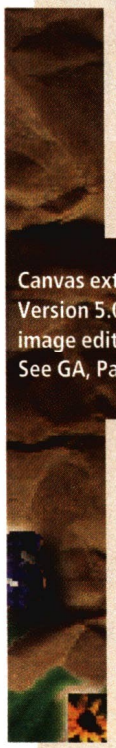
Joe Riera, Apple vice president of information systems and technology, said outsourcing the operation will cost 8 percent less than if Apple ran the plant itself.

However, it's not clear how significant the savings from the Napa plant, which employs 175 people, will be. Riera said the Napa operation was a relatively small component of Apple's worldwide administrative structure. □



Now in beta, Mathematica 3.0 will let users type in symbols and expressions and view them in three different ways. See Reviews, Page 33.

There are pros and cons to both in-house and third-party technical support services. See Solutions, Page 41.



Canvas extends its domain — Version 5.0 handles illustration, image editing and page layout. See GA, Page 12.

Zip drive users can now go mobile with the rechargeable Zip Unleashed! battery pack. See News, Page 8.

MacWEEK

08.19.96 VOLUME 10 NUMBER 32

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Many corporations are trying to balance their technical support efforts to ensure quality end-user service while trimming costs.

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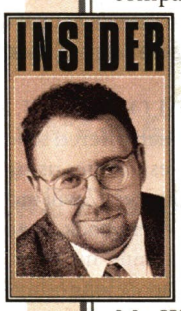
THIS WEEK ONLINE

VirusScan 2.0 ships
Knife Forum
OS increments
Nailing a strategy

Online exclusives

McAfee Associates Inc. shipped VirusScan 2.0, its antiviral utility. … Cut loose with the Knife (and maybe get a mug) by participating in the interactive Knife Forum. Post gripes, tips and bon mots. … Don Crabb and Opinion Page Editor Mark Hall take a look at Apple's new incremental release strategy for the Mac OS. Steamed Crabb says Apple is producing cacophony instead of a symphony, while Off the Record hopes the company is being realistic.



MacWEEK Insider

Adobe Systems Inc. will continue to keep its own counsel with Photoshop 4.0. Senior Associate Editor/GA Matthew Rothenberg says the company is more concerned about links among its applications than in pledging allegiance to the Mac — or Windows — OS.

Where to find us online

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Apple offers coupon packs

Discounts worth $2,500 on 22 items

By Leander Kahney

Apple is giving away a million books of discount coupons for award-winning Mac software and peripherals.

Worth $2,500 off 22 products from 15 vendors, the coupon books are included with purchases of all new Power Macs and Workgroup Servers.

The books will also be handed out at most reseller locations and at special Apple seminars. More than 50,000 were distributed at Macworld Expo this month.

All the products included in the promotion have won awards in the last year from magazines, said Bob Howard, business partner co-marketing manager for Apple's Small Business Marketing division. "We put this together for our developers," Howard said. "We're targeting small businesses and corporate accounts."

The promotion was dreamed up by Eric Herzog, vice president of marketing at Menlo Park, Calif.-based FWB Hammer, a division of StreamLogic Corp.

"It originated with Farallon [Communications Inc.] and Dantz [Development Corp.] wanting to join up to promote each other," Herzog said. "When we took it to Apple, they started to look around for a range of hardware and software companies."

Herzog said Apple wanted to promote the best of the best. "[They] wanted all the products that were either No. 1 or 2 in their

See Vouchers, Page 6

Syncronys unwraps new RAM Charger

By Marty Cortinas

Syncronys Softcorp has made its first foray into the Mac market from the Windows platform with RAM Charger 3.0, a gussied-up version of Jump Development Group Inc.'s memory-management utility.

Syncronys' RAM Charger 3.0, which began shipping last week, is functionally identical to Jump's OptiMem RAM Charger 2.1.1, but it features a new look and interface. Jump is still distributing RAM Charger with the old graphics for those users who prefer the traditional look of the program.

Jump still owns and develops RAM Charger, but all marketing and technical support will now be handled by Syncronys, the devel-

See Syncronys, Page 6

FOCUS ON

OPENDOC

Live Objects software is a collective effort

By Clifford Colby

"In the Live Objects world, being big is a disadvantage," according to Jesse Feiler, a Live Objects developer and software director of the Philmont Software Mill in Philmont, N.Y.

Macworld Expo attendees got their first glimpse this month at the brave new world of Live Objects software, but the developers of those Live Objects components are peering at a puzzling new environment of distribution and cooperation.

The problem: How does a small company with a lean Live Objects part compete against larger software companies selling monolithic applications?

The answer, according to developers: The company focuses on what it does best and works with other Live Objects companies.

The developers are already starting to work together. Digital Harbor of Lindon, Utah, which makes the Wav Live Objects word processing application, joined a collection of companies this month to announce Component 100, a con-

See Focus On, Page 6

LaundroMac cleans drives

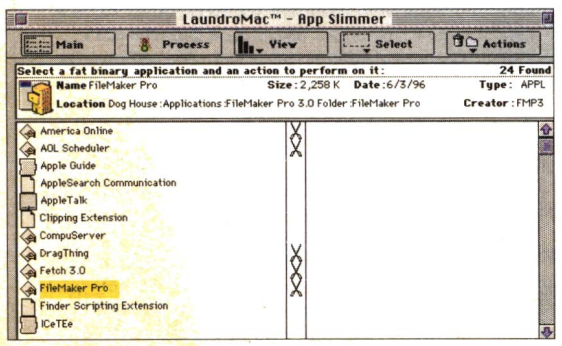
By Marty Cortinas

Mac users can now keep their hard drives clean and spiffy with LaundroMac, a $69.95 suite of disk utilities that was introduced at this month's Macworld Expo by The Excelsior Group.

LaundroMac's eight utilities aim to optimize disk use by identifying redundant or unnecessary files. App Slimmer trims fat-binary applications by removing code not needed for a particular Macintosh. Helter Skelter finds documentation and help files, allowing users to delete them or move them to another disk. MacUninstaller cleans applications from a drive, including any associated files strewn across the disk. Prefs Cleaner searches out and zaps unneeded preference files.

Also included in the LaundroMac package is Alias Resolver, Folder Clearer, Font Remover and Orphan Adopter.

The Excelsior Group of Fairfax Station, Va., can be reached at (888) 239-0433; fax (703) 239-8982; excelsiorg@aol.com; http://members.aol.com/ExcelsiorG/index.html.



LaundroMac's App Slimmer compiles a list of fat-binary applications on a specified volume and lets users cut out unneeded code.

Franklin, Lotus PIM releases on track

By John Poultney

Franklin Quest Co. and Lotus Development Corp. will give users new ways to get their ducks in a row with new personal information manager packages.

Franklin Quest, publisher of the popular paper-based Day Planner organizer, unveiled Ascend 4.0 at Macworld Expo in Boston earlier this month. The $99 package is slated for release in September.

Version 4.0 will let users track time spent on projects, Franklin said. Additionally, users can launch e-mail or browser programs from within any editable field by clicking on an address or URL.

The update will support drag-and-drop text editing as well as multiple languages via WorldScript. The PIM's autodialing feature now works with one click from within any contact field, Franklin said.

The upgrade will cost $39 for users of previous versions.

Meanwhile, Lotus said it is readying a Mac version of Lotus Organizer. In 1994 the company released Organizer 1.1 Scheduling, which offered scheduling capabilities for sites using cc:Mail.

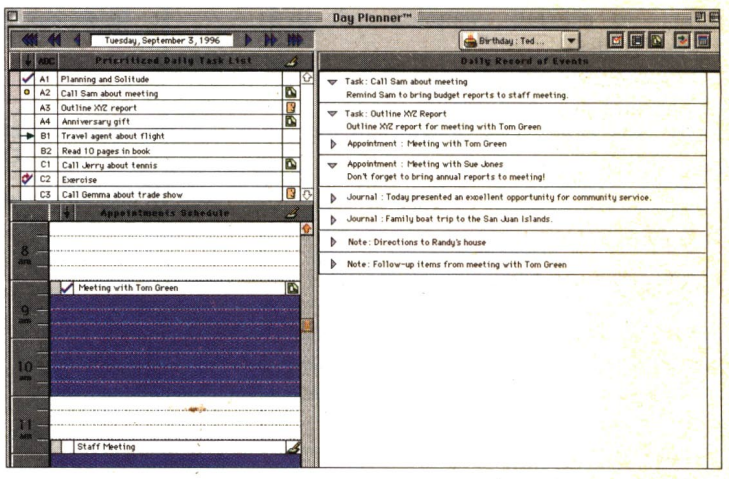
Organizer 97 will include calendar, address-book, notepad, to-do and planning modules. The PIM will support long-range charts up to the year 2100, the company said.

Lotus said the package will automatically convert files from versions 2.0 and 2.1 of Organizer for Windows. The software will also provide templates for several paper-based planners.

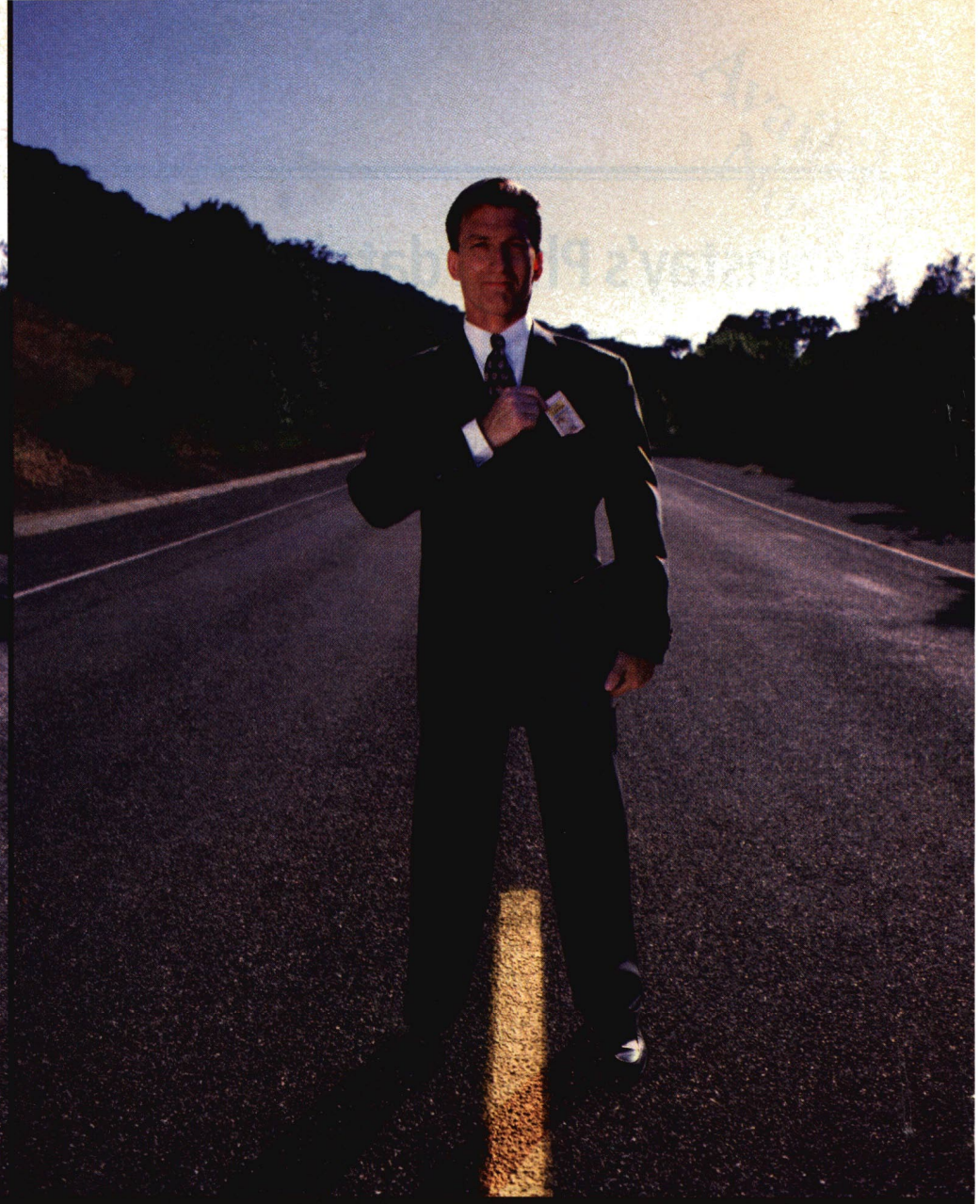
Lotus has not set pricing or availability for Organizer 97.

Franklin Quest Co. of Salt Lake City is at (801) 975-9992 or (800) 877-1814; fax (801) 975-9995.

Lotus Development Corp. of Cambridge, Mass., can be reached at (617) 577-8500 or (800) 346-1305; fax (617) 693-3899; http://www.lotus.com. □


Day Planner™
Tuesday, September 3, 1996
Birthday : Ted...
Prioritized Daily Task List
Daily Record of Events
A1 Planning and Solitude
A2 Call Sam about meeting
A3 Outline XYZ report
A4 Anniversary gift
B1 Travel agent about flight
B2 Read 10 pages in book
C1 Call Jerry about tennis
C2 Exercise
C3 Call Gemma about trade show
Appointments Schedule
Task : Call Sam about meeting
Remind Sam to bring budget reports to staff meeting.
Task : Outline XYZ Report
Outline XYZ report for meeting with Tom Green
Appointment : Meeting with Tom Green
Appointment : Meeting with Sue Jones
Don't forget to bring annual reports to meeting!
Journal : Today presented an excellent opportunity for community service.
Journal : Family boat trip to the San Juan Islands.
Note : Directions to Randy's house
Note : Follow-up items from meeting with Tom Green
Meeting with Tom Green
Staff Meeting

Franklin Quest's Ascend 4.0 combines a prioritized daily task list, appointments schedule and special events reminder with a daily events record.



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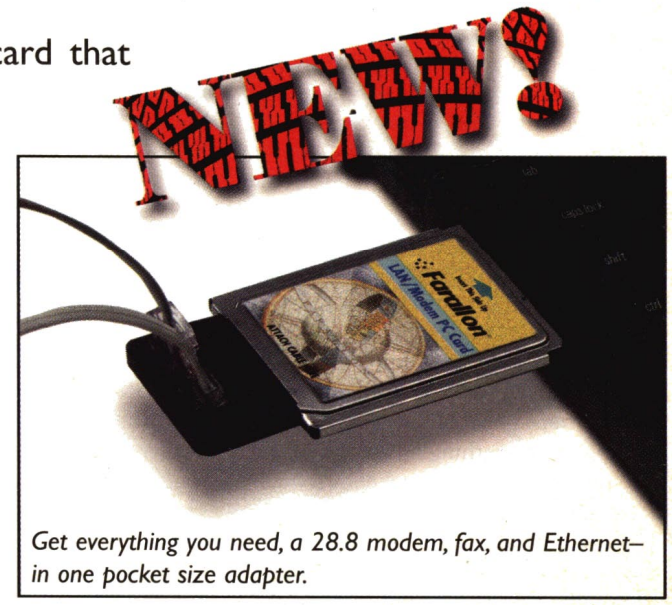
Don't Get Run Over. With the pace of today's business environment you need to stay on top of things as they happen, otherwise, the competition will run you over. What you really need is a portable and reliable solution from a proven leader in Mac networking. Farallon's new LAN/Modem PC Card is the only combo card that offers SafeJack™, the smallest and most reliable PC Card connector available. With the combined functionality of a blazing fast 28.8 Kbps data and fax modem and 10Base-T Ethernet connection in one adapter, you've got a guaranteed connection to access your network, the Internet, and send or receive faxes simultaneously–with no interruption! It's also the only card that works in both PowerBooks and PC notebooks.

Everything You Need. Along with a twin-pack of Farallon's award-winning Timbuktu Pro® remote control software **(a $259 value!)**, we've included STF fax software, ZTerm terminal software, and robust diagnostics to make communications a snap. With Farallon you can become the Road Warrior you were born to be.

For details call **1.800.463.1987** or visit **www.farallon.com** **Farallon®**



Get everything you need, a 28.8 modem, fax, and Ethernet– in one pocket size adapter.

Mainstay's Phyla database set for year-end revision

Multi-user access due in Version 2.0

By Clifford Colby

At Macworld Expo in Boston this month, Mainstay took the wraps off Version 2.0 of its Phyla object-oriented database designed for users other than programmers.

Mainstay said the update, due by the end of the year, will gain multi-user access capabilities similar to those in Claris Corp.'s FileMaker Pro database. The upcoming version will include record locking so only one user can access one record at a time, the company said.

Mainstay said it is also reworking the database's data-reconciliation capabilities. With Phyla's SmartObjects feature, users will be able to take a copy of the database on the road and synchronize changes when they reconnect to the master database. Administrators will gain the capability to set privileges for who can access and update databases.

Mainstay said the update, which will run native on Power Macs, will come with automation capabilities that will let users script start-up, menu and button actions. The new version will also come with a simplified find function similar to System 7.5's. Version 2.0, however, will retain the previous version's find capabilities that let users fine-tune searches.

Mainstay said it will also ship by the end of the year a developers version that will let users create royalty-free stand-alone applications with Phyla.

The company has not set pricing for the update.

Mainstay of Camarillo, Calif., can be reached at (805) 484-9400; fax (805) 484-9428; mainstay1@aol.com; http://www.mstay.com. □

Avian updates image searcher

By Leander Kahney

Avian Systems Inc. is now shipping a major revision of Full-PixelSearch, its image-searching tool that can find specific patterns or groups of pixels in PICT files.

At $295, Version 2.0 is $1,000 cheaper than its predecessor, Version 1.5. The software is also now Power Mac-native and runs up to four times faster, said its creator, Richard Podolsky, president of Avian Systems.

New to Version 2.0 is the capability to soften the search constraints through fuzzy logic, which applies to hue as well as shape, Podolsky said. Users can also create separate files for searches and limit searches to specific regions of the image. Users can create their own coordinate system for the image and calculate the diversity of information in regions of the image, which Podolsky said is useful for identifying information-rich regions.

Podolsky said Avian Systems is working on a version of the application for graphic artists that will include a find-and-replace function, and an Internet version that will be capable of searching across networks. An upcoming version will have support for 24-bit graphics and additional file formats.

Avian Systems Inc. of Fort Lee, N.J., is at (201) 224-2025; fax (201) 224-2566; podolsky@aol.com; http://www.ldeo.columbia.edu/~podolsky/fps.htm. □

Apple's third-party coupon book

SOFTWARE	VOUCHER GOOD FOR
Big Software Inc.	
Big Business	$50 rebate for single-user version, $100 rebate for server
Casady & Greene Inc.	
Conflict Catcher 3.0	Free InfoGenie 1.0
Claris Corp.	
FileMaker Pro 3.0	$20 off
OfficeMail	$20 off
Dantz Development Corp.	
DiskFit Pro	$85 off
Remote 5-Pack	$70 off
Farallon Computing Inc.	
Timbuktu Pro 2.0	Up to $100 off
Ethernet hardware	Up to $300 off
Fractal Design Corp.	
Painter 4	Free Wild Bundle
FWB Hammer	
SledgeHammer Pro	$150 rebate
FWB Software LLC	
Hard Disk ToolKit	$50 rebate
Global Village Communication Inc.	
OneWorld Combo	Free additional licenses and GlobalFax OCR
Jian Tools for Sales Inc.	
BizPlanBuilder	$20 off
Kinkos Inc.	
Color laser printing	Five free prints
Videoconferencing	30 minutes free
Macworld	
Magazine	50 percent off subscription
Expo	$10 off admission
Now Software Inc.	
Now Up-to-Date & Contact 3.6	$100 off
Now Up-to-Date Web Publisher 1.0	$100 off
Specular International Ltd.	
3D Web Workshop	$50 off
Visioneer Inc.	
PaperPort Vx	Free SCSI adapter

Syncronys

From Page 4

oper of SoftRAM and the star-crossed SoftRAM95 on the Windows platform. Under the deal, Syncronys will expand support to 24 hours and provide a toll-free support number.

Syncronys said RAM Charger 3.0 is part of a growth strategy that includes the introduction of other new Mac products in the coming months.

Jump said it looks at the deal as a way to increase the product's market share. "We weren't able to get people to put it on the shelf — that's the bottom line," said Cristan Mooney, Jump lead programmer.

RAM Charger 3.0 costs $39.95. Current users of OptiMem RAM Charger can use their licenses to download the Syncronys version at the company's Web site.

Syncronys Softcorp of Culver City, Calif., can be reached at (310) 842-9203; fax (310) 842-9014; http://www.syncronys.com.

Jump Development Group Inc. of Pittsburgh can be reached at (412) 681-2692; fax (412) 681-2163; sales@jumpdev.com; http://www.jumpdev.com. □

FOCUS ON

From Page 4

sortium of Live Objects developers that will collaborate on tech support, distribution and marketing.

Ken Boyer, software engineer for Digital Harbor, said Component 100 and other collaborative efforts are essential for small companies to achieve critical mass. "Why should we go out and rewrite what someone else has already done?" Boyer said.

Meanwhile, Apple is helping OpenDoc developers get a leg up on marketing and distribution of their components. The company said it plans to bundle third-party Live Objects components with CPUs by year-end, much like the company does with Performa software bundles. Apple said it will initially offer a general-purpose collection, but subsequent bundles will be tailored to specific markets, such as education.

IBM Corp., one of Apple's OpenDoc-development partners, announced similar plans for Windows applications based on OpenDoc. "The bundles will let users do something meaningful," said Scott Hebner, an IBM OpenDoc market development manager in Somers, N.Y. "It makes sense to group these granular parts together" into software bundles.

It's not just the smaller companies that are making bundling plans. For example, Netscape Communications Corp. of Mountain View, Calif., said it intends to bundle the Live Objects version of its Navigator browser with other applications, and ResNova Software Inc. of Huntington Beach, Calif., said it is planning to include its Live Objects components in bundles.

To help companies get their parts to market, Apple is offering developers help with online sales. The company this month launched a program to assist OpenDoc companies by covering their sign-up fees for CNET Inc.'s software store, an Internet-based software clearinghouse that will open its doors this fall. The arrangement should benefit smaller companies.

"When you're distributing expensive physical merchandise, such as hardware or shrink-wrapped software costing hundreds of dollars, infrastructure is essential," Feiler said. However, "when you're distributing relatively inexpensive and small software components over the Internet, infrastructure can be an impediment."

Others agree that component developers stand a better chance of succeeding if they work together. "We are all small developers who believe in OpenDoc," said Paola Aliverti, vice president of operations for SoftLink Inc. of Marco Island, Fla., developer of Lexi word processing utilities and a member of Component 100. "We are cooperating to try to change the market." □

Vouchers

From Page 4

category," he said.

The discounts include $300 off PCI and NuBus networking cards from Farallon of Alameda, Calif.; $20 off FileMaker Pro and $20 off Claris OfficeMail, both from Claris Corp. of Santa Clara, Calif.; a free bundle of effects with the purchase of Painter 4 from Fractal Design Corp. of Aptos, Calif.; a $150 rebate for SledgeHammer Pro from FWB Hammer; a $50 rebate for Hard Disk ToolKit from FWB Software LLC of Menlo Park; free software and additional licenses with a purchase of OneWorld Combo network fax-modem from Global Village Communication Inc. of Sunnyvale, Calif.; and $50 off 3D Web Workshop from Specular International Ltd. of Amherst, Mass.

The offers are good until the end of December. □

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Now it's easy to *triple* your memory with software and without the headache of tearing your Mac apart. New RAM Doubler™ 2 is the improved version of RAM Doubler, one of the highest-rated and best-selling Mac utilities ever with more than *one million* sold. RAM Doubler 2 is faster, offers flexible memory settings and keeps those memory hungry apps at bay. RAM Doubler 2 lets you run more programs at once, work faster and work smarter. Get the most out of your Mac with new RAM Doubler 2.

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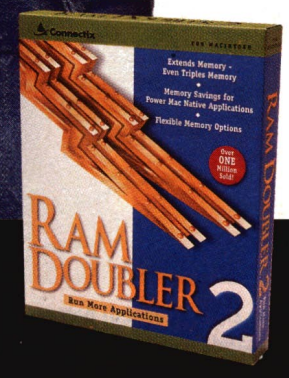

Triple Your Memory With New RAM Doubler 2

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Optima ships DLT drives

By John Poultney

Optima Technology Corp. is shipping three new digital-linear-tape drives and a revised Power Mac-native version of its DeskTape tape-mounting software.

The Concorde line comprises the 30DLT, 40DLT and 70DLT, which have 15, 20 and 35 Gbytes of storage, respectively, and cost $3,599, $5,699 and $9,000.

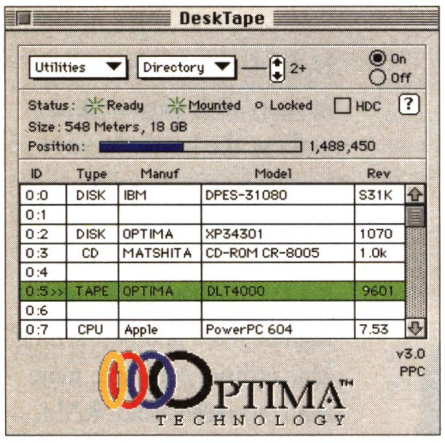
The drives provide sustained throughput of 1.25, 1.5 and 5 Mbytes per second, the company said.

According to Optima, each drive has hardware-based data compression, essentially doubling the native storage capacities and data transfer rates. The faster throughput of the 70DLT comes from a Wide SCSI-2 interface, the company said; the 30DLT and 40DLT are equipped with standard Fast SCSI-2 ports.

Each of the drives comes bundled with DeskTape Pro. The $199 package, which enables users to mount tape drives as standard Hierarchical File System volumes on the Mac desktop, now includes support for 2-terabyte volumes. It also supports Fast and Wide SCSI-2 NuBus and PCI cards and tape drives. DeskTape Pro also comes with a recovery tool for damaged files and a benchmark utility for measuring read and write speeds, the company said.

Current users of any DeskTape version can upgrade to DeskTape Pro for $49.

Optima Technology Corp. of Irvine, Calif., can be reached at (714) 476-0515 or (800) 411-4237; fax (714) 476-0613; marketing@optimatech.com; http://www.optimatech.com. □



Various drives exist peacefully side by side on the Mac desktop with DeskTape Pro.

Iomega releases rechargeable Zip battery pack

Iomega Corp. this month released its Zip Unleashed! battery pack that will let users of the popular Zip drive walk the earth.

The $49 rechargeable battery, about the size of a deck of cards, can power a Zip for about three hours, the company said.

Users can plug Zip Unleashed! directly into an outlet without worry of covering the other sockets, thanks to a set of wall prongs that swivels 270 degrees. Iomega said Zip Unleashed! clips directly onto the Zip drive and will not encumber the drive's use, whether in horizontal or vertical operating position.

Iomega Corp. of Roy, Utah, can be reached at (801) 778-1000 or (800) 697-8833; fax (801) 778-3190; info@iomega.com; http://www.iomega.com. □

The Zip Unleashed! battery pack clips to the Zip and provides about three hours of power.

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MANDATORY CHART	TARGA 2000 RTX	Media 100	Media 100 xs
Real-Time Wipes, Dissolves, and Fades	Yes	No	Preview only
Awesome Dual-Codec Architecture	You Bet	No Way	Zilch
Supports Mac OS and Windows NT	Naturally	Nope	Forget it
Simultaneous RGB and Video Monitor Support	Of Course	Naah!	Fat chance!
Resolutions Supported	720 x 486 648 x 486	640 x 480	640 x 480

GDT updates software RIP

GDT Softworks Inc. early this month released StyleScript 3.0, its software RIP package.

Previously available only for Apple inkjet printers, the $99 software now provides Adobe PostScript Level 2 support for several Hewlett-Packard Co. printers, including the DeskWriter 600 and 660C and the DeskJet 850C and 855C.

The next version of StyleScript, due in January, will support HP's 500 series, the company said.

The current version of the software RIP, now Power Mac-native, also supports Apple's StyleWriter II and 1200 printers and the Color StyleWriter Pro, 2200, 2400 and 2500 printers.

The EPS package includes 13 PostScript fonts and supports all Type 1 and TrueType fonts, the company said.

GDT Softworks Inc. of Burnaby, British Columbia, can be reached at (604) 473-3600 or (800) 663-6222; fax (604) 473-3699; sales@gdt.com; http://www.gdt.com. □

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Printer Beat

Energy-saving printers. Intelligent Computer Solutions of Chatsworth, Calif., this month plans to release an energy-saving power-down device for printers. Called the Green Ghost, the $99 switch is intended for network printers. The device will shut down a printer after a user-specified time of inactivity and power it back up when it is sent a print command, ICS said.

The switch will act as a buffer, storing the print data until the printer has warmed up, eliminating any delay. As a stand-alone device, the Green Ghost will be compatible with all printers and computer systems, ICS said. However, a Mac driver that will speed response time won't be available until November. Phone (818) 998-5805; fax (818) 998-3190; http://www.scsn.net/~ics.

Summer sale. Hewlett-Packard Co. of Palo Alto, Calif., has cut the price of two of its color printer-copiers by more than 25 percent.

To get a bigger chunk of the small-office, home-office market, HP said the CopyJet will now sell for $1,799, down from $2,125, and the CopyJet M will sell for $2,499, down from $2,950. Phone (800) 527-3753; fax-back (800) 333-1917; http://www.hp.com.

Cartridges on the cheap. GRC of Chatsworth, Calif., has unleashed three inkjet cartridges that are compatible with printers from Apple and Canon Computer Systems Inc.

The releases include a $10 black ink cartridge for Canon's BJC-600e and Apple's StyleWriter Pro, and a $7 black ink cartridge and a $19 color cartridge for Canon's BJC-4000 and Apple's StyleWriter 2400 Color and 2500 Color printers. Phone (818) 709-1234 or (800) 423-5400; fax (818) 700-1209; http://www.printgrc.com.

— By Leander Kahney

Philips, Sony license DVD

By John Poultney

Philips Electronics N.V. and Sony Electronics Inc. began licensing their Digital Video Disc technology patents earlier this month.

The move is in response to a continuing stalemate in the 10-company Digital Video Disc (DVD) consortium, which has been unable to agree on a pooled technology-licensing arrangement. Philips' vice president of key modules, Jan Oosterveld, said his company hopes to kick-start the process with the announcement.

There were too many differences in the consortium, Oosterveld said. "We want to make the technology available to the community so that product development can commence."

One of the major sticking points in DVD is copy protection; Oosterveld said this matter is independent of the technology arena. "A number of questions, including copy protection, are still open," he said, "but we felt that time was running out. We could not wait any longer."

Philips said the licensing fees will be about 2.5 percent of the OEM price on DVD players and 4.5 cents on each disc. The technology patents cover a wide range of hardware and software, Philips said, including disc structure, data modulation and error correction.

Both Philips and Sony said they will continue to support the DVD consortium and will welcome joint-licensing arrangements once they coalesce. Oosterveld said he foresees no such agreement any time soon.

If issues such as copy protection can be solved, Oosterveld said, it is possible that consumer DVD players could hit the market by late this year.

"I really don't think they want to go off by themselves on this," said Bob Katzive, vice president of Mountain View, Calif.-based Disk/Trend Inc., a market research company specializing in storage issues. "They are trying very hard to get the rest of the people to get their act together." □

New Dantz Remote Pack backs up across platforms

By John Poultney

At Macworld Expo in Boston earlier this month, Dantz Development Corp. introduced a new method for backing up mixed-platform networks. Remote Pack, an add-on program for Version 3.0 or higher of Dantz's Retrospect and Retrospect Remote backup packages, lets these programs access Windows 95 and NT machines through Macintosh backup servers.

Administrators need to add Remote Pack's client software to Intel-standard machines and these systems will be incorporated into Retrospect's operation transparently as if they were Mac clients, Dantz said.

According to Dantz, Remote Pack works with either AppleTalk or TCP/IP networks. The TCP/IP compatibility will let Remote Pack conduct backups over the Internet, Dantz said, and encryption functions are built-in for extra security. Administrators can add Internet Protocol addresses and domain name server names directly to Retrospect's address book, allowing Remote Pack to automatically connect to them.

Remote Pack is available now in five-, 10- and 50-user packs for $99, $150 and $300, respectively.

Dantz Development Corp. of Orinda, Calif., is at (510) 253-3000 or (800) 225-4880; fax (510) 253-9099; info@dantz.com; http://www.dantz.com. □

Spell Catcher app takes over for Thunder 7

By Marty Cortinas

Casady & Greene Inc. tried its best this month to make sure that Macworld Expo didn't become "Macweird" with the release of Spell Catcher, an upgrade to the Thunder 7 spelling checker.

Spell Catcher comprises a spelling checker, thesaurus, shorthand glossary and word saver. It works with all Mac programs that use text.

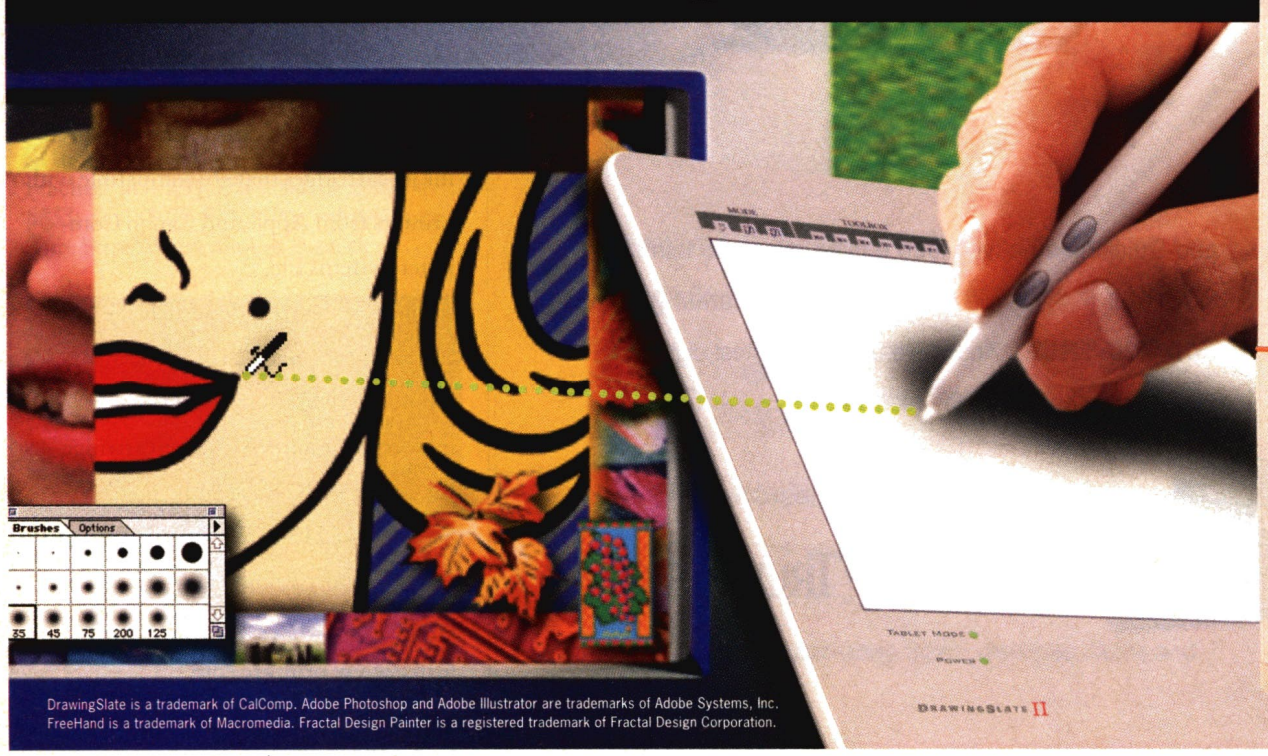
The spelling checker can make changes on the fly, or the user can check the entire document at one time. The glossary automatically expands shorthand notes.

The word-saver feature stores up to 32 Kbytes of information per application, helping to restore data in the event of a crash.

Spell Catcher costs $79.95; upgrades from competing products cost $29.95. For a limited time, Thunder 7 users can purchase Spell Catcher for $19.95.

Casady & Greene Inc. of Salinas, Calif., is at (408) 484-9228; fax (408) 484-9218; c&g@casadyg.com; http://www.casadyg.com. □

A big part of creating is what's in your head. The other part is what's in your hand.



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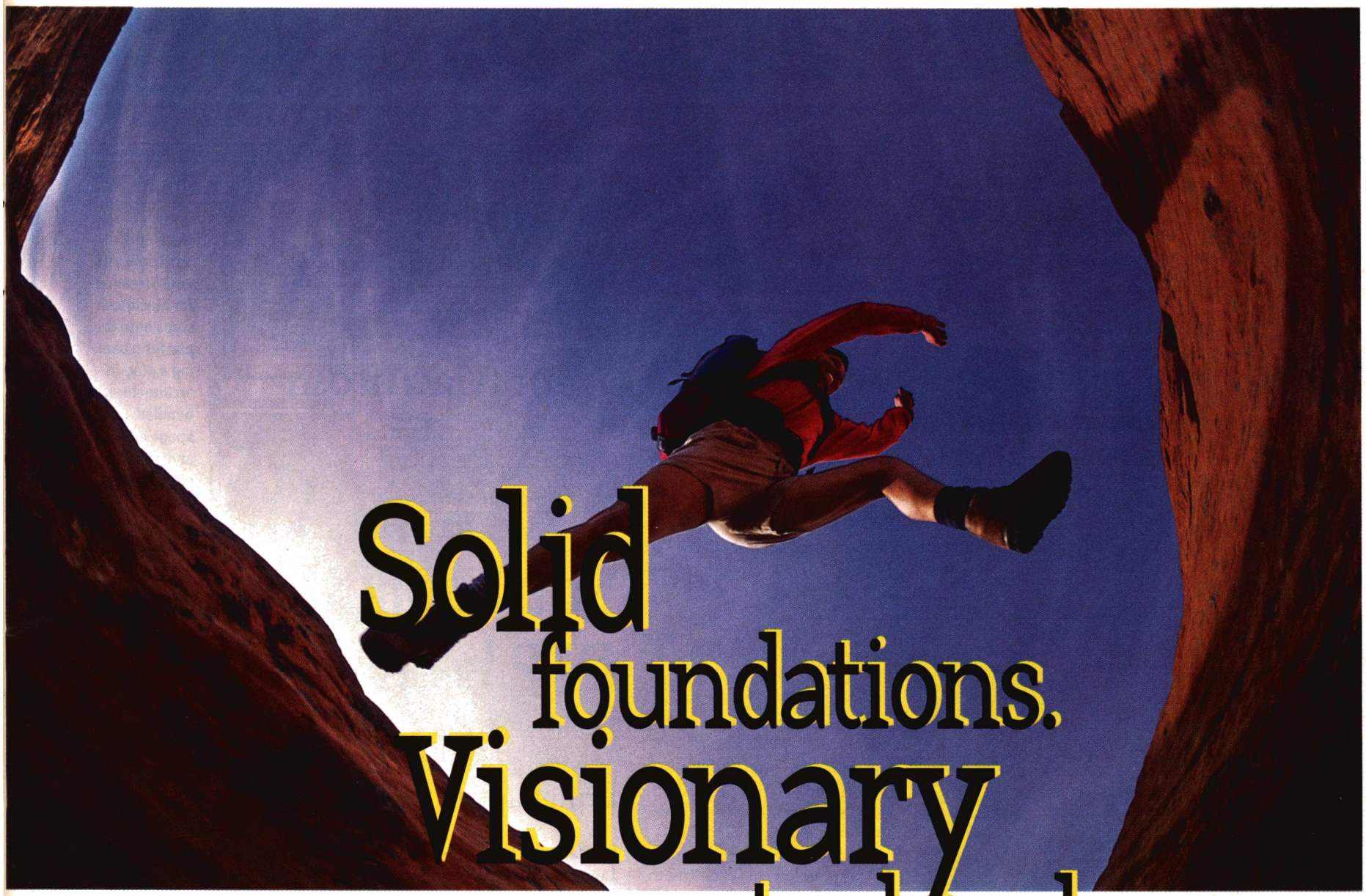

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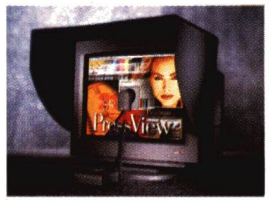
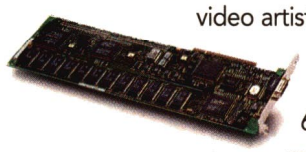


The ThunderPower 30/1920 PCI graphics card offers blazing performance and the highest screen resolution available on any platform, making it perfect for illustrators, video artists and design professionals. It features 6 MB of video memory and up to 1,920 by 1,080-dpi resolution.



It's the perfect complement to the PressView color reference display system. PressView has the accuracy, resolution and clarity needed for color prepress, media authoring, photography and more. Its high-quality DiamondTron aperture-grille CRT supports resolutions as high as 1,600 by 1,200 pixels.

Together, PressView and ThunderPower are four times faster than any other combination on the market. If you're looking for professional, WYSIWYG color and rock-solid reliability, whether for yourself or for your customers, Radius requires no leap of faith. So call your local retailer or Ingram Micro at 1 (800) 456-8000.

Resellers can earn a free PressView 17-inch monitor (a $1,700 value) by purchasing any five of the nine qualifying bundles of PressView or PrecisionView monitors with ThunderColor or PrecisionColor cards from Ingram Micro now through September 27, 1996 Call your sales representative at 1 (800) 456-8000 for details.*

End users can jump on this deal: Purchase any Radius monitor with a Radius PCI graphics card and receive Fractal Design's Poser, the best way to integrate the human figure into design, and E-magine's ProView, the world's easiest multimedia authoring tool, for free (a $198 value). Just fax proof of purchase to Radius' Better Than Ever Summer Promotion at (714) 566-7812.

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OUTSIDE LOOKING IN

At Siggraph 96, Artbeats Software Inc. announced the Exterior Surfaces Collection, a set of 80 tileable images.

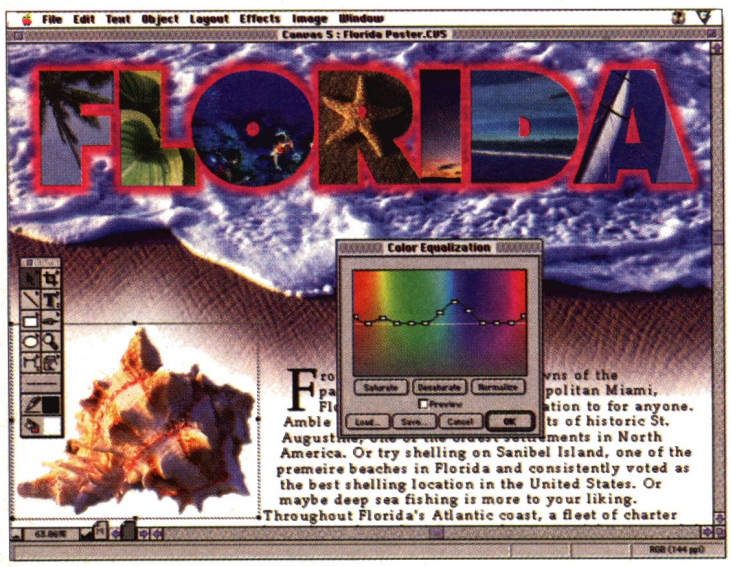
Canvas covers graphics with omnibus Version 5

By Rebecca Gulick

After a long dry stretch, Deneba Software this month rolled out a major revision to Canvas at Macworld Expo in Boston.

Canvas 5.0, priced at $599.95, transforms the illustration application into an integrated suite of illustration, image-editing, page-layout and presentation tools. It also supports Adobe Photoshop filter plug-ins, the company said.

Expo show goers were enthusiastic about Canvas' new capabilities. "I work as a designer, so it's important to be able to do a little bit of this and a little bit of that," said Marlene N. Bober of Framingham, Mass., who purchased Canvas 5.0 from Deneba's booth the day it arrived. "It's always a nuisance to have to hop back and forth from one [application] to another."


File Edit Text Object Layout Effects Image Window
Canvas 5 : Florida Poster.CPS
FLORIDA
Color Equalization
Saturate
Desaturate
Normalize
Load...
Save...
Cancel
OK
Preview
Amble
America. Or try shelling on Sanibel Island, one of the premeire beaches in Florida and consistently voted as the best shelling location in the United States. Or maybe deep sea fishing is more to your liking.
Throughout Florida's Atlantic coast, a fleet of charter

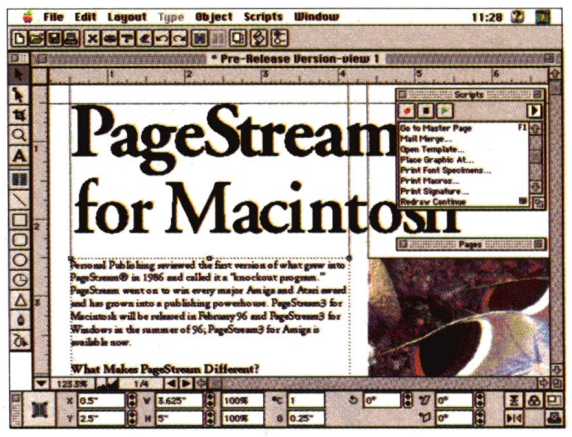
Deneba Software's Canvas 5.0 wraps illustration, image-editing, page-layout and presentation tools into a single application.

Canvas 5.0 features a customizable tab-based palette interface and lets users work with illustration, publication or presentation documents simultaneously. Users can drag elements from one project into another and edit individual objects within groups without ungrouping.

Version 5.0 features unlimited Undos and offers several path-editing effects, such as combine, mix and transparency. It also includes lathe, sweep, extrude and light-source tools for creating 3-D images. The software lets users create slide shows with fades and other transitions.

In addition, Canvas 5.0 adds an array of image-editing capabili-

See Canvas, Page 14



Developer SoftLogik said PageStream 3 for Macintosh steps onto the platform bearing a plug-in architecture, a bundled image editor and a variety of page-layout tools.

SoftLogik takes on DTP heavyweights

Amiga developer brings app to Mac

By Matthew Rothenberg

Longtime Amiga developer SoftLogik Publishing Corp. will enter the Mac page-layout market in September with PageStream 3, the company's desktop publishing product.

PageStream 3 is based on software that first shipped in 1986 for Atari ST machines, SoftLogik said. The software is currently available in a $50 pre-release version, 3.1, that lacks some of the complete version's capabilities; the final software, dubbed PageStream 3.2, will retail for $595. Owners of the pre-release software will be able to upgrade for $125.

According to SoftLogik, PageStream 3.2 will feature a plug-

See PageStream, Page 14

Truevision card speeds throughput

By Connie Guglielmo

Video professionals are used to hearing about "clean" video, but Truevision Inc. says its new high-end board delivers "pristine" video at data rates fast enough for users of nonlinear editing, compositing, animation and 3-D applications.

Although it stops short of offering the real-time 2-D capabilities of Truevision's top-of-the-line Targa 2000 RTX, the new $7,995 Targa 2000 DTX offers a data rate of up to 12 Mbytes per second. It is designed to handle the system demands of

See Truevision, Page 14

FirstClass to loosen Tailor's ties to GX with Version 1.1

By Connie Guglielmo

Following the advice of users unwilling to commit to Apple's QuickDraw GX imaging technology, FirstClass NV of Zwijnaarde, Belgium, in September will release a new version of its visual PostScript editor. Tailor 1.1 will display PostScript text and objects on-screen without the use of GX, FirstClass said.

Like the GX-based Version 1.0, Tailor 1.1 will let users edit any PostScript file without having to go back to the original application in which the file was created. Priced at $495, the software will be distributed in the United States by EnFocus Software Inc.

Tailor will use proprietary code to render PostScript. It will let users correct spelling errors; change fonts, colors and line thickness; and move, scale and rotate objects by clicking and dragging or changing PostScript code numerically. The software will accept PostScript and EPS files and export in PostScript, EPS or Adobe Illustrator 3.0 format (see 03.18.96, Page 14).

"We've been using Tailor to look at a customer's PostScript file and do correcting and also to see if there are any font problems before we print," said Lou Spetnagel, Tailor 1.1 beta tester and production manager for Center Copy Champion Color, a service

See Tailor, Page 14

Microspot moves 3D World

By Rebecca Gulick

Microspot USA Inc. this month shipped an update that rounds out its low-cost modeling and rendering application, making it a more full-featured 3-D package.

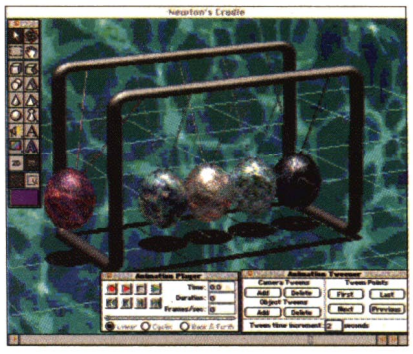
The $139 3D World 2.0 adds animation and tweening for creating QuickTime movies. The update can also map QuickTime movies onto objects.

Version 2.0 also features plug-ins for drawing gears, relief maps and 3-D graphs of mathematical equations.

Like the previous version, 3D World 2.0 is based on Apple's QuickDraw 3D architecture and supports 3DMF (3-D metafile format). The software offers a variety of geometries, including 3-D text, pipes and a torus primitive, and it lets users apply colors, textures, images and sounds to 3-D objects. It offers lighting controls for adjusting light sources and camera controls for displaying objects in different views.

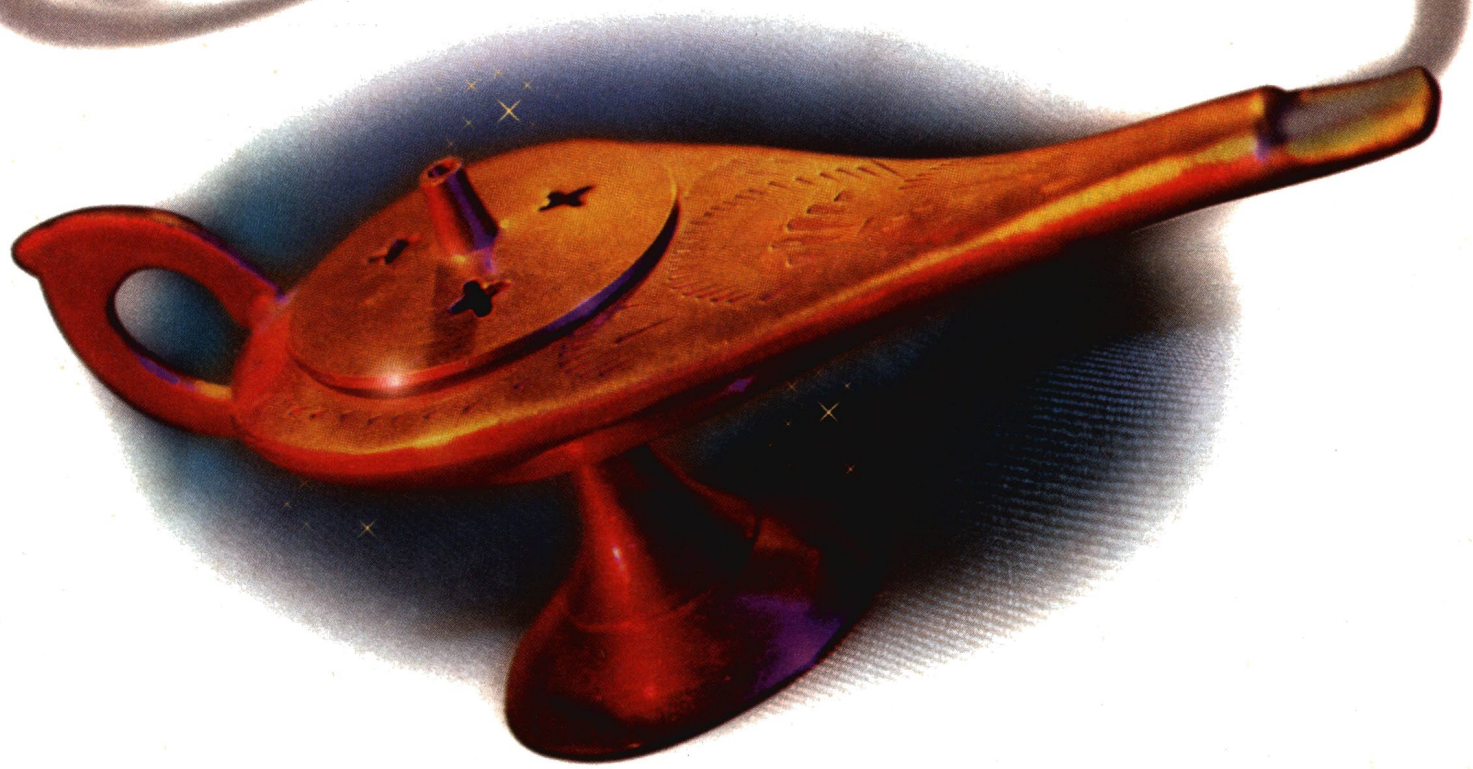
Upgrades from 3D World 1.0 cost $39. A bundle of 3D World and PhotoFix, Microspot's image-editing software, is $149.

Microspot USA Inc. of Saratoga, Calif., is at (408) 253-2000 or (800) 622-7568; fax (408) 253-2055; uspot@aimnet.com; http://www.microspot.com.



Microspot USA's 3D World 2.0 adds animation features to round out the 3-D application. Version 2.0 can map QuickTime movies onto 3-D objects.

WEB/DATABASE MAGIC



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Linotype ships Profilers

By Matthew Rothenberg

Linotype-Hell Co. this month shipped a new suite of profiling tools for ColorSync 2.0, the system-level color-management extensions the company co-developed with Apple.

The LinoColor Profilers package, priced at $1,195, comprises CaptureProfiler, DisplayProfiler and PrintProfiler modules, which generate profiles that are compliant with ICC (International Color Consortium) for scanners, monitors and printers, respectively.

A variety of options enhance the package's capabilities, Lino said. The $695 Capture Targets includes a wider variety of scan targets for scanner calibration. Display Kit, also $695, has a colorimeter for use with the monitor-calibration module. The PrintProfiler Upgrade, priced at $895, enhances the print-calibration software with additional settings to control elements such as gamut mapping, gray balance, black generation, maximum and minimum dots, and dot gain.

Linotype also announced that it has renamed its image-capture and color-correction software that is bundled with the company's scanners. Originally called LinoColor, the package is now dubbed LinoColor VisuaLab, the company said.

Linotype-Hell Co. of Hauppauge, N.Y., can be reached at (516) 434-2000 or (800) 842-9721; fax (516) 233-2166; http://www.linocolor.com. □

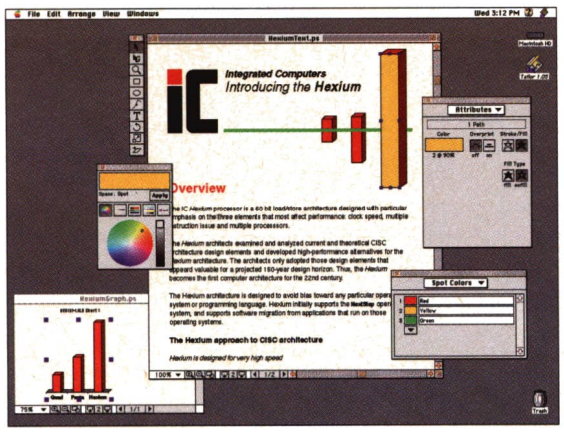
Tailor

From Page 12

bureau in Denver. "With Tailor, we can print their files as long as they're PostScript."

According to Peter Camps, CEO of FirstClass, GX was chosen as Tailor's initial display engine because the technology supports the display of complex stroked or filled Bezier curves and text rotated to arbitrary angles.

However, "Most people in the publishing community hesitate — or flatly refuse — to install QuickDraw GX on their Macintoshes," Camps said. "The major concern seems to be all sorts of incompatibilities with existing applications and utilities, especially those used in the typical PostScript-based publishing house."



FirstClass NV plans to snip Apple's QuickDraw GX imaging technology out of Tailor 1.1, a visual PostScript editor for displaying PostScript text and objects on the screen.

Camps also said users were reluctant to take on the system overhead required to run GX. "There is no added benefit for the end user in the requirement for QuickDraw GX," Camps said.

EnFocus Software Inc. of Denver can be reached at (303) 297-9096 or (888) 363-6287; fax (303) 297-1793; info@enfocus.com; http://www.enfocus.com. □

PageStream

From Page 12

in architecture as well as a variety of typographical, page-layout and graphics tools. The company said the software will support an unlimited number of master pages measuring up to 2,000 inches square; users will also be able to mix page sizes within a single document and join pages into spreads.

Layout tools in PageStream will include snap-to guides as well as drawing and layout grids. Users will be able to create tables containing up to 99 columns, resize text by clicking and dragging, and create variable-shaped text frames.

The software will offer character- and paragraph-level style sheets and support up to 10 type styles. It will also include a find/change capability for text.

PageStream's typographical controls will include automatic and manual kerning and tracking, autohyphenation with a custom dictionary, automatic generation of ligatures, and absolute and relative leading to 0.001 point. Users will be able to rotate or skew text in increments of 0.001 degrees, SoftLogik said.

PageStream 3.2 will let users import EPS and other graphics. It will also feature simple line and box tools, pen and freehand drawing capabilities, and the capability to dissolve drawings into paths and shapes. Users will be able to anchor objects to text or wrap text around an object, set object styles, convert objects to a path, and group and lock objects. They will also be able to generate process and spot colors with object-level trapping.

PageStream 3.2 will support unlimited levels of Undo and offer Apple-events scripting and online help via Apple Guide, the company said.

Version 3.2 will also include a configurable tool bar, an Eyedropper tool for copying text and object attributes, and support for arbitrarily shaped masks.

PageStream 3.2 for Macintosh will require at least a 68030 processor and 5 Mbytes of RAM, although SoftLogik recommends a Power Mac with 16 Mbytes of RAM. The software will ship with BME for Macintosh, a proprietary image-editing application that can read image files in the following formats: TIFF; PICT; GIF; PCX; BMP; MacPaint; and IFF (Interchange File Format), an Amiga bit-map format. It can convert between RGB, CMYK, indexed color palette, gray-scale, and black-and-white formats.

The company said it plans to release a Windows 95 version of PageStream in the first quarter of 1997. "The Amiga market is declining, and, in fact, it's pretty much gone now," said Mike Loader, product developer for SoftLogik.

SoftLogik said it is also offering a pair of plug-in packages for PageStream. TextFX 2, priced at $50, works with Adobe Type Manager to let PageStream users warp text within shapes and bend it along curves. Gary's Effects, priced at $25, comprises 12 effects that can be used with PageStream's image editor, such as Gamma and Convolve.

SoftLogik Publishing Corp. of St. Louis, Mo., is at (314) 256-9595 or (800) 829-8608; fax (314) 256-7773; info@softlogik.com; http://www.softlogik.com. □

New Praxisoft service creates ICC profiles

By Connie Guglielmo

Praxisoft Inc. last week launched a new service for graphics professionals who need custom-built ColorSync 2.0 profiles for their printers, monitors and scanners.

In addition, the company announced that it will roll out a variety of delayed color-management tools in time for September's Seybold San Francisco expo.

Praxisoft's Remote Profiling Service, available now, lets users order device profiles for ColorSync 2.0, Apple's system-level color-management extensions, as well as CompassLink Smart Palettes.

Users start by printing a target containing 25 patches that represent a range of tones. After users send the printed page back to Praxisoft, the company analyzes the target and creates a ColorSync 2.0 profile as well as a palette of Pantone colors optimized for the device.

Costs for the Remote Profiling Service are $1,000 for the first substrate off a press and $200 for each additional substrate. For

See Praxisoft, Page 16

Canvas

From Page 12

ties. The upgrade features Lasso, Marquee, Magic Wand and QuickMask selection tools and lets users apply effects such as distort, smudge, blur, sharpen, dodge and burn. Version 5.0 can adjust image brightness, contrast, hue and saturation.

The typographical controls in Canvas 5.0 include drop caps and fractional leading, tracking, kerning and scaling to 0.01-point increments. Users can customize style sets and wrap text around shapes or apply strokes and fills to editable text.

Programmable SmartMouse controls hone cursor movements to half a micron, Deneba said.

"It's a wonderful program," said John Sturman Jr., a Webmaster in Casper, Wyo. "For the price, you can't beat it." Sturman said Canvas 5.0 is easier to use than Adobe PageMaker and is faster and less memory-intensive than Adobe Photoshop. "Now I can do all that right in Canvas," he said. "It saves loads of time."

According to Doug Levy, vice president of corporate communications at Deneba: "We don't expect people to throw away their copies of [Adobe] Illustrator or Photoshop or [Microsoft] PowerPoint. We know that people will have to become comfortable with the product."

Canvas 5.0 is free to those who buy Version 3.5 between July 1, 1995, and Sept. 30, 1996.

Deneba Software of Miami can be reached at (305) 596-5644; fax (305) 273-9069; sales@deneba.com; http://www.deneba.com/. □

Truevision

From Page 12

compute-intensive graphics and video applications.

Among its capabilities, the DTX supports component YUV, RGB, S-video, and composite video input and output; drives both RGB and NTSC/PAL monitors simultaneously while supporting industry-standard RGB, NTSC and PAL (European) resolutions; offers synchronized audio and video in hardware; and adds a Motion-JPEG compressor-decompressor that handles compression with minimal loss in image quality, Truevision said.

Truevision's DTX board also features cross-platform support for QuickTime and Windows NT Video-for-Windows native file formats, and it offers onboard acceleration of up to 600 percent for 19 popular transitions found in Adobe Premiere editing software.

For users who later decide to work in real time, Truevision is offering an upgrade path to Targa 2000 RTX capabilities for $2,995.

Truevision is also offering an optional $1,495 Breakout Box that can be used as a desktop device or can be rackmounted to provide an industrial interface between the Mac and an analog video-production environment.

The Targa 2000 DTX requires a Power Mac PCI 9500 or 8500 with System 7.5, a minimum of 24 Mbytes of RAM, and a 2-Gbyte SCSI hard disk.

Truevision Inc. of Santa Clara, Calif., can be reached at (408) 562-4200 or (800) 729-2656; fax (408) 562-4066; http://www.truevision.com. □

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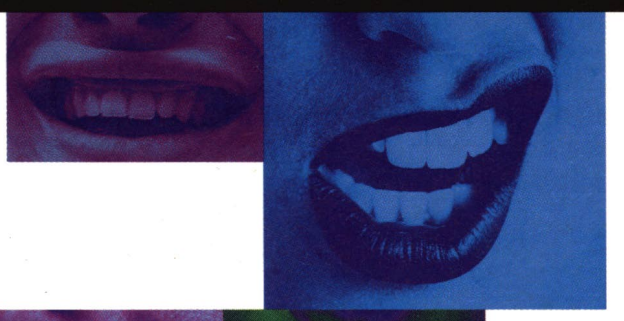
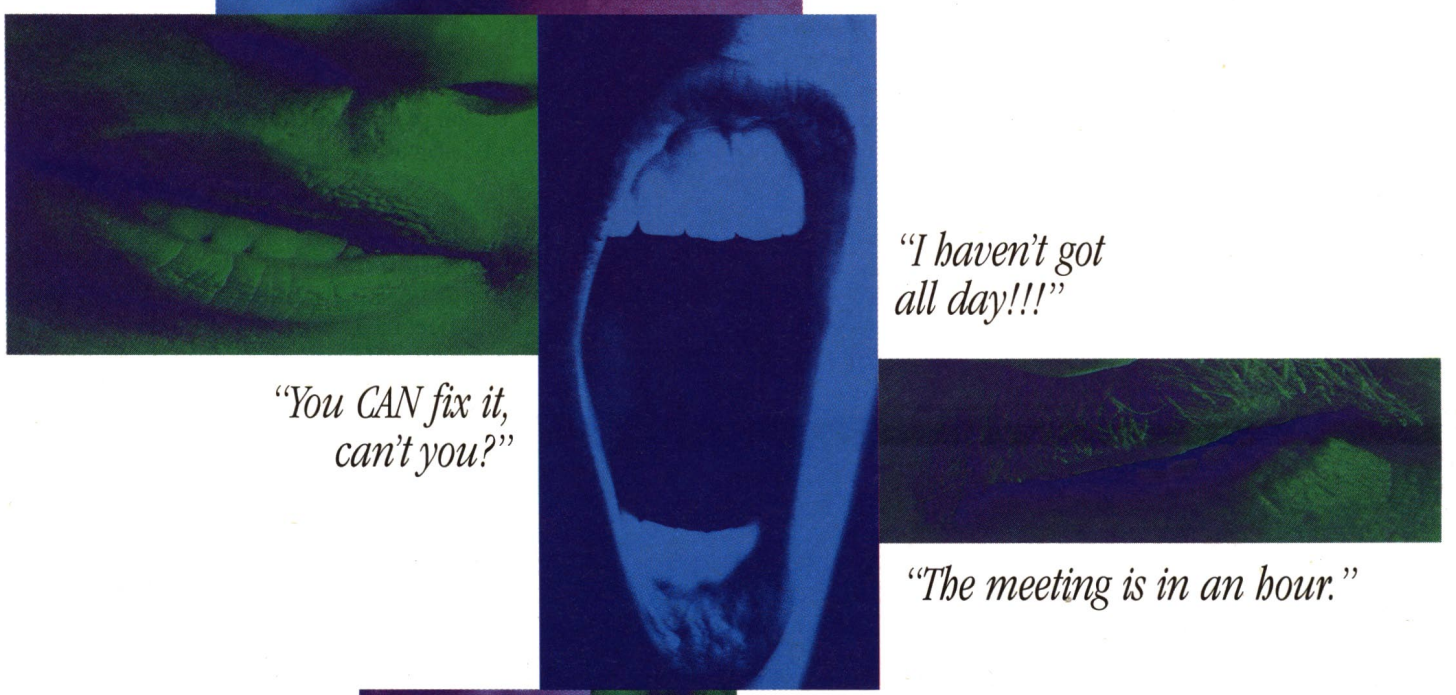
"I thought you said this wouldn't happen again."



"I've never seen this before, have you?"

"I lost my disks. Don't you have a back-up copy?"

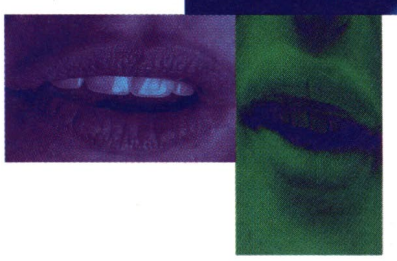
"It just stopped working"



"You CAN fix it, can't you?"

"I haven't got all day!!!"

"The meeting is in an hour."



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Overdrive speeds images

By Rebecca Gulick

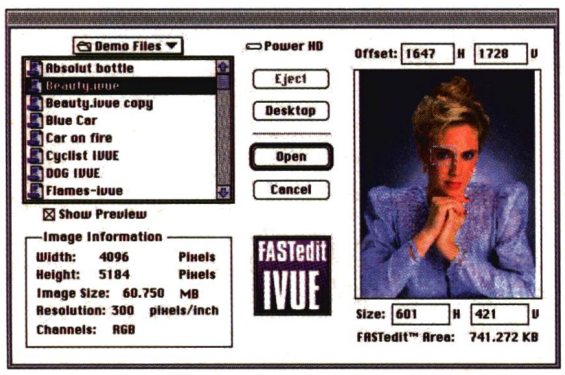
Live Picture Inc. in July lowered the cost of image editing with a slimmed-down version of its flagship product.

Live Picture: Overdrive, which is priced at $149.95, lets users manipulate high-resolution files in real time on systems with as little as 18 Mbytes of RAM, the company said.

According to Live Picture, Overdrive was designed as a companion product to Adobe Photoshop, addressing Photoshop's high RAM requirements when manipulating large files as well as speeding performance.

Overdrive features the Fastedit/IVUE plug-in developed by Total Integration Inc. of Palatine, Ill., which speeds image editing by letting users work on isolated subsets of files. According to Live Picture, this plug-in can improve Photoshop's cloning and retouching performance.

Like the complete $695 version of the Live Picture software, Overdrive lets users alter masks with Bezier and selection tools as well as import and export paths and alpha channels.



Live Picture's Overdrive software gives Photoshop users a hand with large images via its Fastedit/IVUE image-editing plug-in.

It also features selective Undos and reusable file settings in Live Picture's FITS format. Users can position, scale, rotate, group and composite an unlimited number of layers, according to the company.

The software offers multiple options for blends and transparency effects and lets users apply color or image gradients without banding or artifacts, Live Picture said.

It offers extensive color controls and supports ColorSync 2.0, Apple's system-level color-management extensions. It also supports Photoshop Acquire and Export plug-ins.

Overdrive does not offer Live Picture's Silhouetting and Distortion layer types, color-separation control, cloning, or selective color correction.

Users can upgrade from Overdrive to Live Picture 2.5 for $495.

Live Picture Inc. of Soquel, Calif., is at (408) 464-4200 or (800) 724-7900; fax (408) 464-4202; order@livepicture.com; http://www.livepicture.com/. □

Praxisoft

From Page 14

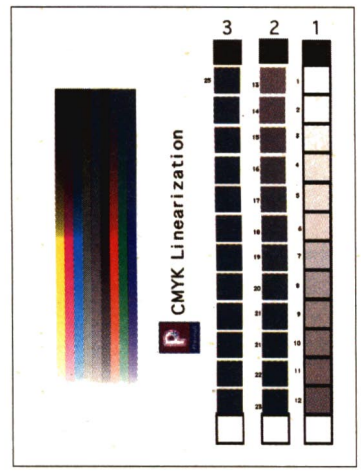
desktop and proofing printers, the price is $750 for the first substrate profile and $100 for each additional substrate.

Meanwhile, Praxisoft will use the Seybold expo to introduce a variety of tools originally slated to ship in June (see 05.13.96, Page 14). The software will include:

- **CompassMaster** (originally dubbed MatchLink Admin), a $3,499 package that will let systems administrators create, maintain and manage SmartPalettes for each output device on a network.
- **ColorCompass 2.0,** a new version of the color-management software that will let designers select colors from networked palettes. ColorCompass 2.0 will sell for $329; current 1.1 users will be able to upgrade to Version 2.0 for $49.
- **CompassSwap Bundle** (originally MatchLink Extenders), a $329 set of plug-in modules that will let users manage the color of vector-based graphics within QuarkXPress, Adobe Illustrator and PageMaker, and Macromedia FreeHand.
- **CompassMaster Profile Bundle,** a $5,299 bundle that will include the CompassMaster software as well as CompassProfile, a new application for generating ColorSync 2.0 profiles.

The $5,299 bundle will also include CompassCapture, a handheld spectrophotometer for characterizing scanners, printers and monitors.

Praxisoft Inc. of Sterling, Va., can be reached at (703) 450-8001 or (800) 557-7294; fax (703) 450-8007; http://www.praxisoft.com. □



The Remote Profiling Service will create a color profile of any device that can print this target page.

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BYTE

"The Vertex 2.6 GB is National Software Testing Lab's "Best Overall, Best High Performance and Best Value" Optical Drive Byte Magazine, May 1996

IMAGING MAGAZINE

Vertex 2.6 GB Best Performer Award April 1996

AceCAD, Wacom pen revisions

By John Poultney

New input devices from AceCAD Inc. and Wacom Technology Corp. promise to enhance Mac artists' palettes. Both companies rolled out their products at this month's Macworld Expo in Boston.

AceCAD took the wraps off a low-cost graphics tablet. The AceCat III is available now for $129.

The new tablet measures 5 inches square and weighs in at less than 1 pound, including an integrated wrist rest. The device offers a resolution of 2,540 lines per inch.

According to the company, the AceCat III incorporates substantial improvements in radio frequency shielding over previous versions, increasing tracking precision.

The tablet's corded, three-button stylus comes with inking and noninking tips. While the tablet is not pressure-sensitive, it responds to pressure-emulation controls in some graphics applications, such as Dabbler 2, the natural-media application from Fractal Design Corp. of Aptos, Calif.

AceCat III comes with a transparent plastic overlay that lets users insert art or templates for tracing, the company said.

AceCAD is currently bundling the tablet with Dabbler 2 for $159. The company said it is aiming the tablet at amateur artists, business-graphics users and Web designers.

Meanwhile, longtime Mac tablet vendor Wacom introduced the Erasing UltraPen with DuoSwitch, a battery-free, cordless stylus that works with Wacom's line of ArtZ II graphics tablets as well as the 4-by-5-inch ArtPad II.

The stylus will be included with all Wacom tablets, the company said.

Like the original Erasing UltraPen, one end of the stylus acts like a pressure-sensitive eraser.

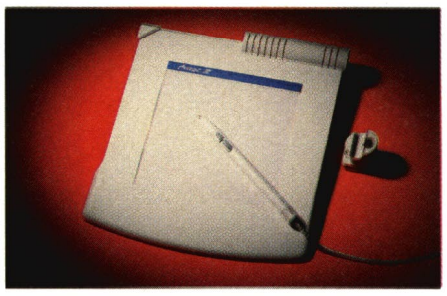
In addition, the Erasing UltraPen with DuoSwitch features a new rocker-style switch that Wacom said offers more tactile control than earlier designs.

Users can program the switch via a control panel; options include standard drawing, mouse operation and macro playback. Shift, Command, Option or Control keys can be used with either switch position to extend the range of functions available to users, the company said.

The Erasing UltraPen with DuoSwitch retails for $89.99; through Oct. 1, registered ArtPad II and ArtZ II owners can upgrade for $49.99.

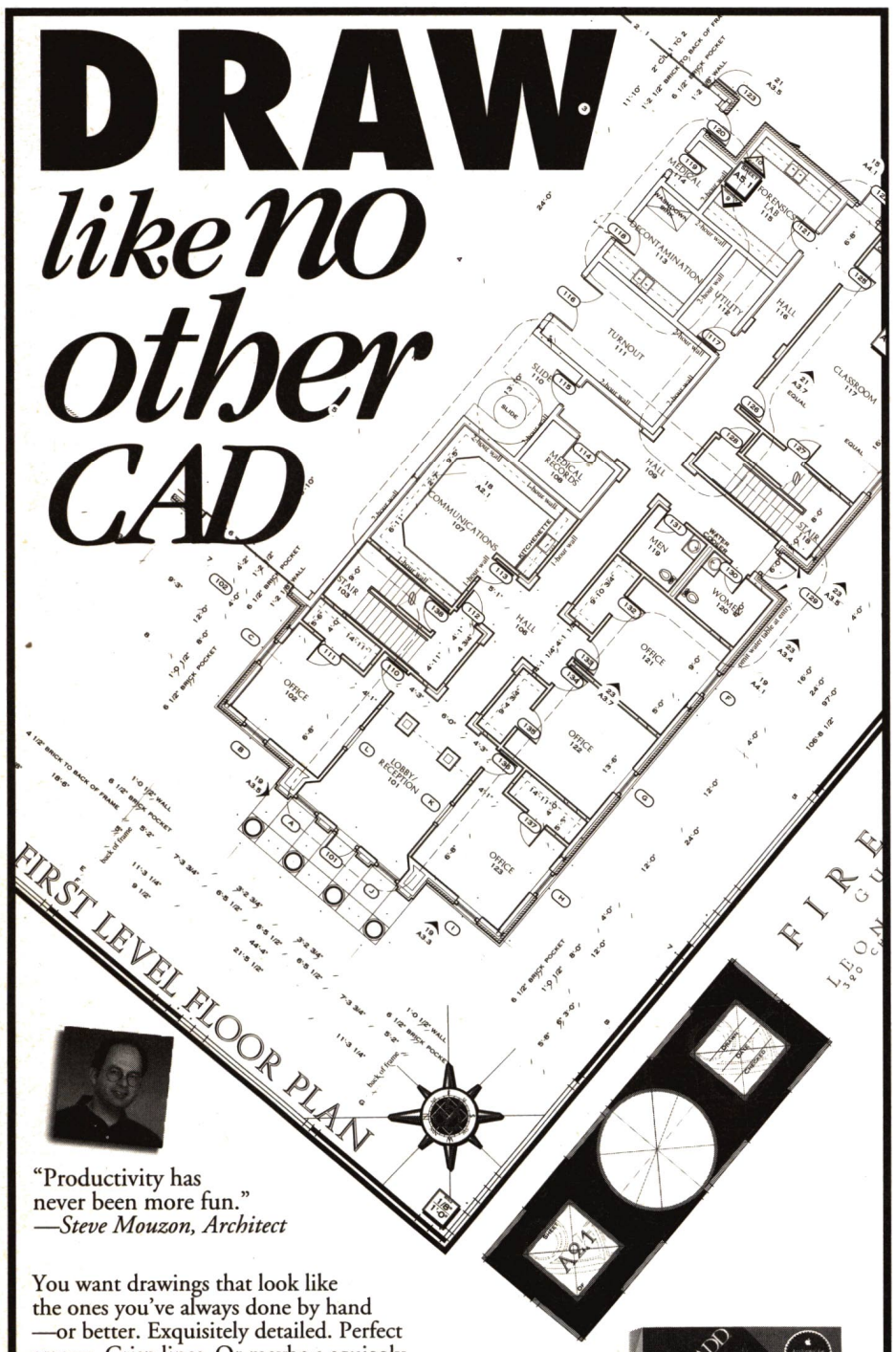
AceCAD Inc. of Monterey, Calif., can be reached at (408) 655-1900 or (800) 676-4223; fax (408) 655-1919; info@acecad.com; http://www.acecad.com.

Wacom Technology Corp. of Vancouver, Wash., can be reached at (360) 750-8882 or (800) 922-6613; fax (360) 750-8924; sales@wacom.com. http://www.wacom.com. □



The 5-inch-square AceCat III graphics tablet offers a resolution of 2,540 lines per inch and includes an integrated wrist rest.

DRAW like NO other CAD



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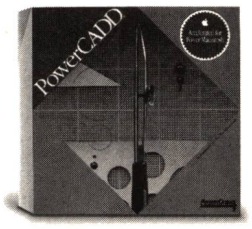

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CLIP ART BEAT

Out of Africa. Calgary, Alberta-based Image Club Graphics, a division of Adobe Systems Inc., recently shipped a new collection of clip-art images. Worldbeat Africa, $99.99, includes more than 200 EPS images depicting Africa's landscape and the rituals and traditions of its people, including ornamental Benin medallions and tribal pattern borders. The company also released Mini Pics Zafrica, a $29.99 set of African symbols. Phone (403) 262-8008 or (800) 661-9410; fax (403) 261-7013; http://www.imageclub.com.

Swingin' '40s. Havana Street of Austin, Texas, in September will release a CD-ROM comprising 10 collections of 1940s-style EPS clip art. In The Mood, $229, will include volumes such as Faces, Office, Transportation, Objects and People. Several of the volumes are available for $59 each. Phone (512) 892-6688 or (800) 460-7624; fax (512) 892-5609; havanaguys@aol.com; http://www.eden.com/~havana.

Touch of elegance. Aridi Computer Graphics Inc. of Dallas recently shipped a new volume of background images. Ornamental Backgrounds, $149, features 202 gray-scale and CMYK images in EPS, Macromedia FreeHand and PICT formats. The background patterns contain intricate elements from various historical eras. Phone (214) 404-9171 or (800) 755-6441; fax (214) 404-9172.

Biz pics. PhotoDisc Inc. of Seattle this month released a new collection of stock photography. Volume 35: Business Today, $299, comprises 336 business images. PhotoDisc also plans to offer 50,000 images via the Web by year-end. Phone (206) 441-9355 or (800) 528-3472; fax (206) 441-9379; http://www.photodisc.com.

— By Rebecca Gulick

Quality is Everything

HEALTH LETTER
Summer 1996
Volume 5, Issue 3
The Olive, The Grape, And Your Heart
At last, some refreshing good news about the foods you love. There are foods that are good for you (other than broccoli, Mr. Bush). Several years ago, science confirmed the wine drinker's long-held assumption that drinking wine in moderation is beneficial to one's health.
The first studies indicated that red wines contain chemicals – quercetin, and resveratrol – that the levels of harmful dilate blood time later, the und to be a researchers University a previously ing for benefits.
antioxidant. Salicylic acid also helps lower cholesterol and prevent blood from clotting in clogged arteries. Some studies suggest that 30 milligrams of aspirin a day may help to keep the heart healthy.
Olive oil, which contains heart-healthy monosaturated fat, than the harmful fats found For maximum flavor, try or virgin oils. Both are olives, refers to its content. For use as a content. over a salad or splashed tables, grilled fish probably light oil
at the table. pour a shallow bowl and toss in fresh or dried herbs and garlic. lightly dip bread into the oil
Continued on page 3
Dataproducts
Typhoon

Now You Can Get Everything and More

If quality is your Number One priority, Dataproducts' Typhoon 8 laser printer is your Number One choice. *MacUser* (September 1995) calls the Typhoon 8's 1200 dpi output "stunningly realistic... photographic quality" with "perfectly smooth, crisp text" and "smooth grayscale ramps, rich blacks, and full shadow detail."

But there's much more to the Typhoon 8 than superb output quality. Its ability to handle extra-large paper lets you create full-page bleed 11"x17" images for comps or camera-ready art.

MacUser RATED 1/2 SEPTEMBER 1995

The 1200-dpi Typhoon 8 has 32MB of RAM standard, up to 750 sheets input, PostScript® Level 2, available Ethernet or Token Ring connectivity, and still more.

Call 800-980-0374 for the sales office nearest you, or visit us on the web at http://www.dpc.com. We'll show you what the printer with more than everything can do for you.

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OfficeMail a mixed bag for LAN e-mail. See Reviews, Page 38.

Maxum to build Web server in OS

Beats ResNova, StarNine for deal

By James Staten and Joanna Pearlstein

The decision has been made to include a personal Web server in the Mac OS, and the winner is an unreleased product.

According to sources, the agreement will put a new version of Maxum Development Corp.'s RushHour server in a future version of the operating system, possibly in an OS release early in 1997. Another source said the integration could come as soon as this fall.

The terms of the deal reportedly have Streamwood, Ill.-based Maxum providing a personal Web server based in part on the RushHour engine. Exactly how Apple will integrate the server into the OS is not known, but sources said Apple wants the server to be available everywhere; Apple may include it in a future version of the Apple Internet Connection Kit.

RushHour is a $295 accelerated server designed for delivering multimedia files; it must be used in conjunction with a Web server that

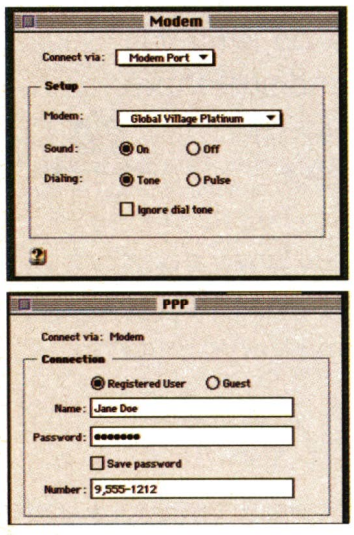
See Maxum, Page 22

Apple puts PPP in OS with new OT upgrade

By Joanna Pearlstein

Apple this month integrated the Internet's most popular remote-access protocol into the Mac OS.

The company last week posted to its Internet servers a public beta of OT/PPP 1.0, Apple's first implementation of the Point-to-Point Protocol, or PPP (see 06.03.96, Page 12). OT/PPP requires the new Version 1.1.1 of Open Transport, which was released for public beta testing early this month.



Apple's new Open Transport/PPP lets users configure modem and Point-to-Point Protocol account information in a pair of control panels.

OT/PPP is designed to replace current implementations of the protocol, such as FreePPP and MacPPP. Richard Ford, Open Transport product manager, said Apple's Power Mac-native and Open Transport-optimized PPP client should provide performance that is as good or better than other PPP products.

Eric Belsley, an assistant professor of math at the University of Miami in Coral Gables, Fla., said: "This is a good step by Apple in the right direction. A good OT and native PPP implementation simply must be part of the Mac OS." After some tweaking, "OT/PPP is running like a charm," said Belsley, who also maintains the Mac Resource Page on the Web.

The new PPP client software, which comprises two control

See PPP, Page 22

Web editors crowd field

Updates coming fast and furious

By Joanna Pearlstein

A host of companies this month unveiled contestants in the Web publishing tool race.

▶ **Adobe Systems Inc.** of Mountain View, Calif., released a public beta of PageMill 2.0, the second generation of the company's Web-publishing tool.

Scheduled to ship in September for $99, Version 2.0 will let users add frames directly within a document window. Users will also be able to place text for CGI (Common Gateway Interface) scripts and Java in a place holder to accommodate HTML extensions that the software does not support directly.

Version 2.0 will also add support for client-side image maps; WYSIWYG creation of tables and forms; spell checking; find and replace; and the capability to preview QuickTime, QuickTime VR and Portable Document Format files from within the program.

The beta is available at http://www.adobe.com.

Adobe PageMill 2.0, now in public beta, supports WYSIWYG table editing and frames.

▶ **Gonet Communication Inc.** of Menlo Park, Calif., began shipping Golive Pro 1.1, an update to the version the company shipped in June (see 06.17.96, Page 72).

Golive Pro is a $149 graphical HTML editor that supports frames, forms, tables, and Macintosh Drag and Drop. Golive Pro includes support for client- and server-side image maps, Java applets, and HTML 3.2 tags. It verifies HTML tags and can import bookmarks and address books from Netscape Navigator.

The product includes an out-

See HTML, Page 22

Conferencing gets update

By David Morgenstern

Apple this fall will update its videoconferencing technology with improved collaboration, a new ISDN PCI card and support for dial-up connections. In addition, the company will extend the technology to the Microsoft Windows platform.

Due by November, the $49.95 QuickTime Conferencing 1.5 extension will offer users a Shared Files window for transferring files. In addition, the product's whiteboard will show PICT images of annotated documents, allowing users to move text and delete annotations individually.

The software will support 28.8-Kbps modem connections and provide audio and collaboration capabilities. Apple will continue to offer a $289 bundle that includes Apple Media Conference software and a video camera. The new kit will also include Farallon Communications Inc.'s Timbuktu Pro 2.0.

Apple will also ship an ISDN PCI card offering compressor-decompressors for audio and H.320 video. Based on a board from Cupertino, Calif.-based Sagem, the unit provides connections up to 128 Kbps; pricing has not been set.

Apple will deliver a version of

See Conferencing, Page 22

Rockstar goes ape on Net

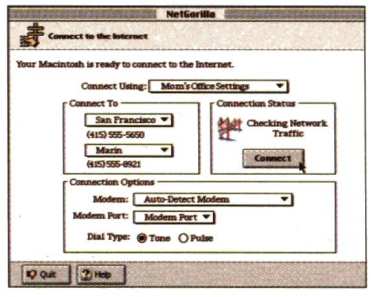
By Marty Cortinas

Rockstar Studios Inc. entered the Internet jungle this month when it announced NetGorilla and shipped the Internet Startup Monkey.

NetGorilla, due to be released for public beta in October, is an all-in-one program that consolidates Internet application and system software settings and provides an application launcher. The program will coordinate news server and mail addresses for a user's applications and will create settings for multiple connections.

NetGorilla will also alert users of new mail and will warn users when the quality of a connection declines. The program will also be able to check for software updates from systems administrators. Pricing has not been determined.

Also this month, Rockstar shipped the Internet Setup Monkey 1.01, a tool for creating and distributing custom installers that configure Mac systems for TCP/IP and Point-to-Point Protocol connections.



NetGorilla consolidates Internet settings in one application.

Aimed primarily at Internet service providers and educational institutions, Internet Setup Monkey can also install and configure popular Internet applications. Pricing for the Monkey starts at $625 for 250 users.

Rockstar Studios Inc. of San Francisco can be reached at (415) 242-1984; fax (415) 263-3144; sales@rockstar.com; http://www.rockstar.com.

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Maxum

From Page 20

serves the HTML pages and handles requests that require CGIs (Common Gateway Interfaces).

The current version of RushHour is not a Web server, but sources said Maxum has already created a product that integrates several of the company's technologies — including Web security and CGI support — for the Mac OS.

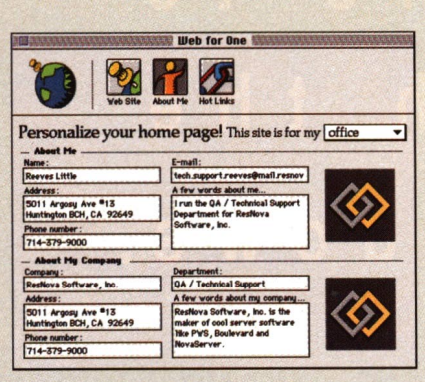
Maxum won the Apple deal in a hotly contested battle involving Quarterdeck Corp. of Marina del Rey, Calif., and ResNova Software Inc. of Huntington Beach, Calif.

Sources said they were surprised Maxum beat out ResNova, since the latter is now shipping a personal Web server (see story below). But Apple reportedly preferred to use an unannounced product. Sources said Apple's inclusion of RushHour in the Mac OS would benefit all personal server vendors.

Apple and Maxum declined to comment. □

Personal Web servers hit home

If the World Wide Web democratized publishing, then ResNova Software Inc. and Quarterdeck Corp. have just given everyone the vote. The two companies this month are delivering the Mac's first personal Web servers.

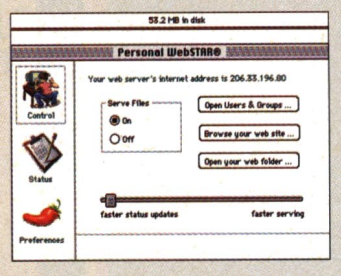


ResNova's Web for One, now available for $39, asks users questions and then creates a home page for them.

ResNova shipped early this month the final version of its Web for One 1.0, and Quarterdeck expects to soon deliver the first public beta of its Personal WebStar.

The $39 Web for One, formerly named PWS, publishes HTML and styled-text files on the Web through a system extension and an administrative control panel. The software can automatically place headers and footers on pages, build a page of favorite Web links, and display information about the site's owner — all without requiring the user to edit HTML.

Web for One converts styled text files into HTML automatically, allowing users to publish plain and formatted SimpleText files by placing them in a folder. Likewise, the program serves any Macintosh files placed in a folder in a manner similar to Apple's NetFinder CGI (Common Gateway Interface). The ResNova software uses the Users & Groups control panel for security settings. It has a limit of four simultaneous connections and queues up 16 more.



Quarterdeck's Personal WebStar, soon to be available in public beta, will serve any files that are dragged onto its alias.

Web for One supports CGIs as well, but at Quarterdeck's request ResNova has removed the WebStar 3.1 plug-in support reported earlier.

Quarterdeck's Personal WebStar, formerly WebStar Lite, will be a shareware server that replaces MacHTTP in Quarterdeck's lineup. The $49 application will handle up to two simultaneous users, Quarterdeck said. The personal server will automatically publish HTML-formatted files that are dragged onto the application's icon.

Personal WebStar will implement Quarterdeck's WebStar Server API, so it can use add-ons from third-party developers but not CGIs (see 05.20.96, Page 18).

ResNova Software Inc. of Huntington Beach, Calif., can be reached at (714) 379-9000; fax (714) 379-9014; info@resnova.com; http://www.resnova.com.

Quarterdeck Corp. of Marina del Rey, Calif., can be reached at (510) 649-4949 or (800) 525-2580; fax (510) 548-0393; info@starnine.com; http://www.starnine.com.

— By Stephen Howard

HTML

From Page 20

liner so users can collapse portions of their documents, as well as a gallery for storing frequently used items. In addition, Golive Pro sports an HTML database, so users can add HTML tags by downloading a database update from the company's Web site.

Gonet is now distributing Golive 1.0 free; it is available from http://www.golive.com.

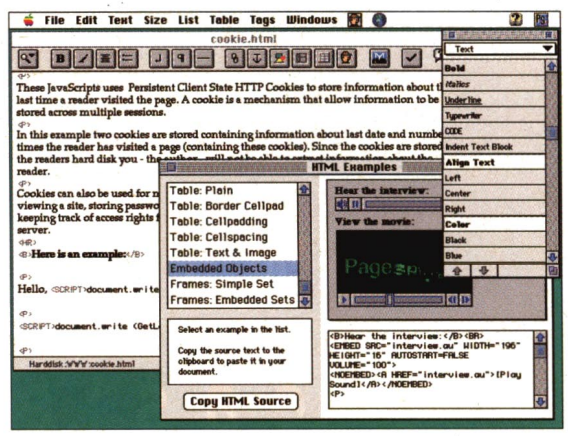
▶ **Optima System** of Stockholm, Sweden, this week will release the fourth beta of PageSpinner 1.2, a $25 Web publishing tool. PageSpinner is a non-WYSIWYG editor that supports Macintosh Drag and Drop, frames, tables, WorldScript, Java, HTML 3.2, embedded objects, and the Internet Config preferences utility.

The product can automatically preview pages through an assortment of Web browsers. Version 1.2 will include a floating tools palette and support for QuickDraw 3D, QuickTime 2.5, QuickTime VR, dynamic JavaScripts and Web Robots. PageSpinner is sold only over the Internet and can be found at http://www.algonet.se/~optima/pagespinner.html.

▶ **SoftQuad Inc.** of Toronto announced HoTMetaL Pro 3.0 at Boston's Macworld Expo this month. Scheduled to ship in mid-September, the $159 product will be a graphical HTML authoring tool that will include support for tables, frames, WYSIWYG form authoring, Java, Shockwave and ActiveX.

HoTMetaL will offer HTML-validation tools to check the accuracy of a user's code. The company will provide electronic updates that will cover the latest HTML tags.

HoTMetaL Pro will also support Macintosh Drag and Drop; HTML 3.2; cascading styles; and background colors, including colors in tables. Version 3.0 will have a tool for importing documents from popular word processors. It will also include a WYSIWYG table editor; a graphical frames editor; and MetalWorks, a tool for editing graphics. Upgrades from Version 2.0 will cost $69.



PageSpinner from Optima System includes sample JavaScripts for using the Netscape Navigator Cookie function.

SoftQuad said it is also planning a product specifically aimed at intranet page designers; the company said it has not decided on a schedule for the Mac version.

▶ **Concept 1 Communications Inc.** of Markham, Ontario, last week rolled out a beta version of Tapestry 2.0, an update to the company's Web tool released in June (see 06.17.96, Page 20). The new version will add support for multiple Undos, forms, frames, find and replace, and a new method for managing multimedia files. It will also automatically learn new HTML tags, the company said.

Tapestry 2.0 will be able to view a document's HTML source code and preview Web pages in a browser. Concept 1 said it will also offer page templates as well as support for multiple languages.

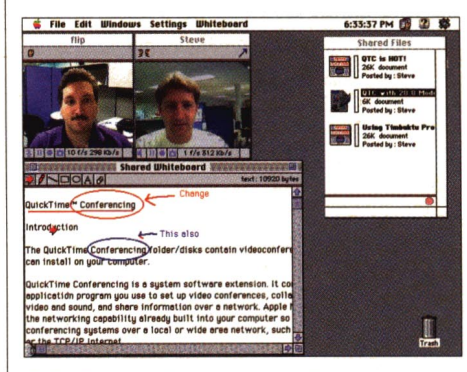
The company plans to add support for tables and client-side image maps in Version 2.1, due in October.

Tapestry costs $69; upgrades from Version 1.0 will be free. Version 2.0 is expected to ship Sept. 15. □

Conferencing

From Page 20

the QuickTime Conferencing 1.5 extension for Windows this fall. The ActiveX component software will be based on code from Intelligence at Large Inc. of Philadelphia, the developers of WebTalk, a $49.95 QuickTime Conferencing-compliant Windows application licensed to Quarterdeck Corp. of Marina del Rey, Calif.



QuickTime Conferencing 1.5 will let users transfer documents via a new Shared Files window.

"We're partnering to create interoperability," said John Harriman, product line manager for QuickTime Conferencing. Harriman noted that the technology is used in the forthcoming Macintosh version of Netscape Navigator (see 07.08.96, Page 1). The QuickTime Conferencing components will support the browser's CoolTalk telephony and LiveChat whiteboard capabilities. □

PPP

From Page 20

panels and a collection of shared libraries, comes with several Apple-event scripts for common PPP functions, such as connecting and disconnecting, as well as initialization scripts for modems and ISDN devices.

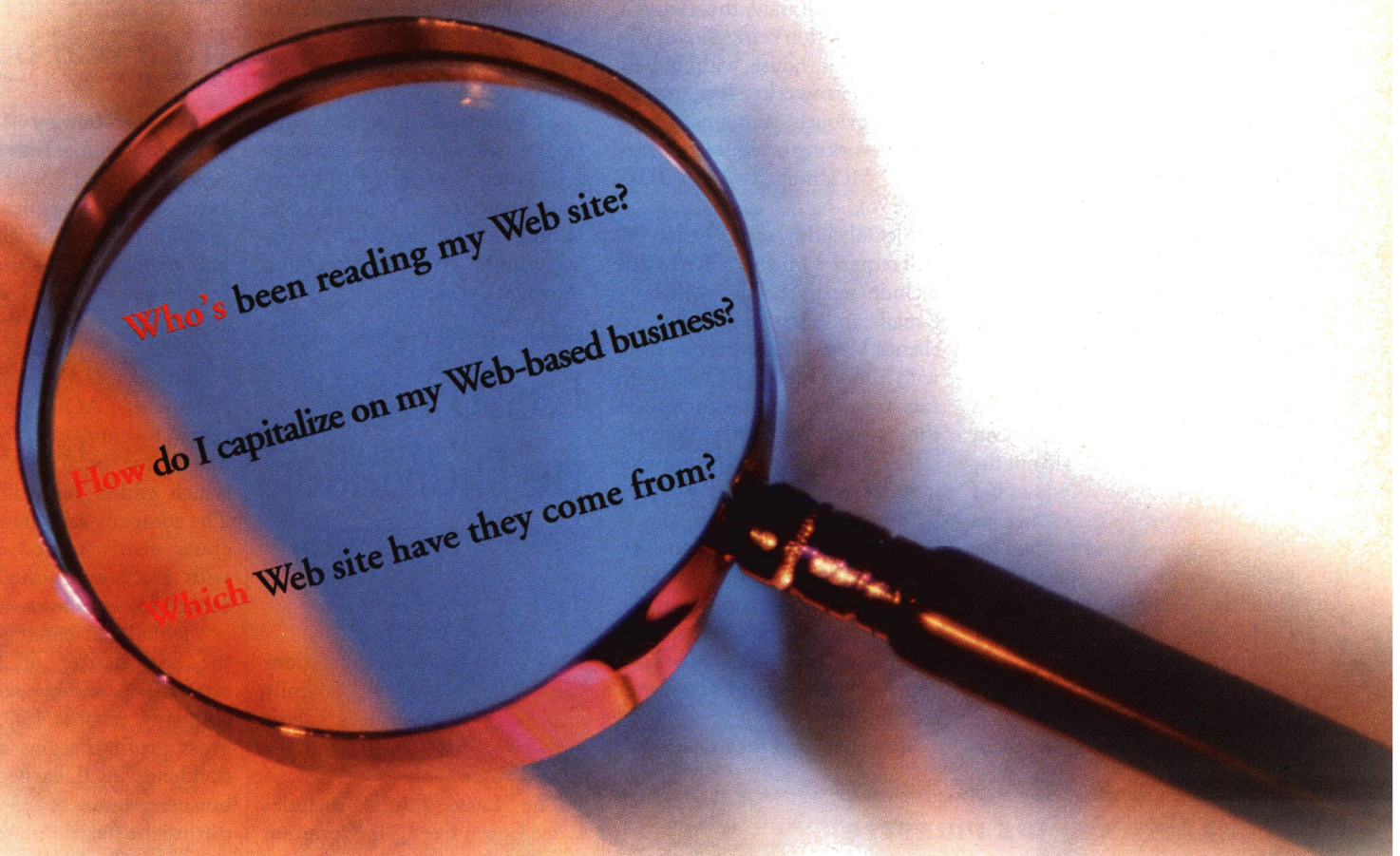
Apple is previewing a utility for creating CCL (Command Control Language) scripts. Called Modem Script Generator, or MSG, the program lets users create initialization scripts for virtually any modem by entering the model name, manufacturer and a modem command string.

The new Open Transport, unlike previous versions, runs on Performa and Power Mac 5200, 5300, 6200 and 6300 series systems. In addition, Apple said Version 1.1.1b6 fixes problems with memory management, adds performance enhancements for Mac-based Web servers, repairs some Apple Remote Access (ARA) compatibility problems and fixes problems with PowerBooks waking from sleep while AppleTalk is active.

The Open Transport 1.1.1 beta program will last about three weeks, Ford said, and OT/PPP will be in public beta for two to three months. Next spring, Apple plans to roll out Open Transport 1.5, which will include PPP 1.1 as a standard part of the Open Transport installer.

Ford said Apple's ultimate goal is to develop an "all-in-one" implementation of PPP that carries TCP/IP, normal AppleTalk and ARA traffic. He said the integration of PPP in ARA will come in ARA 3.0, which is scheduled to ship in the first half of 1997 (see 02.26.96, Page 16). □

TAKE A CLOSER LOOK AT YOUR WEB SITE



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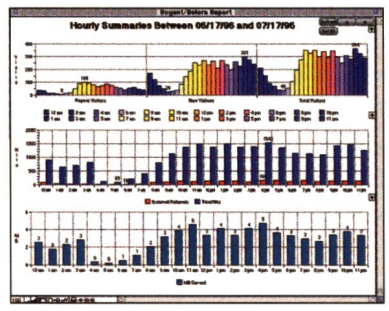
- Includes versatile report generation tools—Voyant and CLEAR:Access



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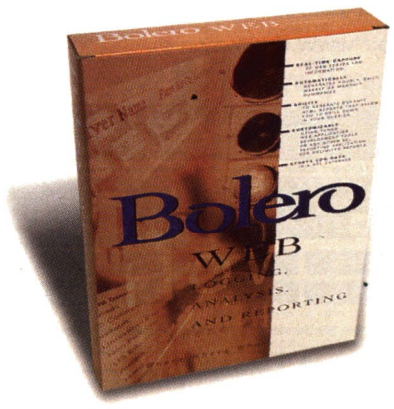

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Explorer 3.0 hits the Mac

Browser supports ActiveX, Java code

By James Staten

Microsoft Corp. demonstrated the Macintosh version of Internet Explorer 3.0 at Macworld Expo in Boston earlier this month. When released, the update will be the first version of the company's free Web browser to offer ActiveX and Java support.

Daniel McGillicuddy, Microsoft software test engineer, said a public beta of the new Mac version will ship late this month or early in September; a final release is expected at January's Macworld Expo in San Francisco. Microsoft rolled out the final Version 3.0 for Windows last week, highlighting the numerous ActiveX controls available for Intel-standard PCs, including Farallon Communications Inc.'s Look@Me and a suite of Web utilities from Quarterdeck Corp.

ActiveX is Microsoft's Internet-centric implementation of OLE Controls. The component technology will be implemented systemwide on Windows 95 and within Internet Explorer on the Macintosh (see 05.13.96, Page 20). Microsoft said the ActiveX implementation being shown was developed in-house, without help from Metrowerks Inc., which had previously announced that it was working on the technology with Microsoft (see 06.03.96, Page 76).

McGillicuddy said Version 3.0 will require 4 Mbytes of RAM and include separate, Microsoft-built e-mail and Usenet newsgroup clients; Version 2.1 currently ships with Eudora Lite from Qualcomm Inc. for mail. Microsoft said it chose to offer the clients separately rather than built into the browser in order to give users more choice. The browser will launch the e-mail and news programs through Apple events, McGillicuddy said.

During demonstrations at the expo, Internet Explorer used 6 Mbytes of RAM to run Java applets, ActiveX and Macromedia Shockwave.

"I'm surprised they still aren't shipping a version with Java support," said Chris Fry, a self-described hacker with Harlequin Inc. of Cambridge, Mass. Fry said he was nervous about ActiveX finally coming to the Mac "because I fear it will win vs. OpenDoc, and OpenDoc is so much better."

Also shown last week was the final version of Internet Explorer 2.1, which is expected to be released this week. Version 2.1 will be built into Version 3.0 of America Online Inc.'s client, also shown at the expo. □

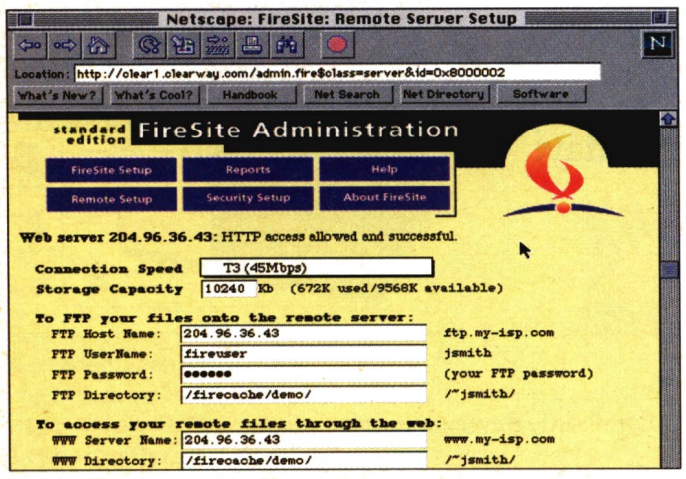
CLEARWAY SHIPS FIRESITE

Users seeking to boost the speed of their Web servers can now look to ClearWay Technologies Inc., which is shipping FireSite.

FireSite works as a plug-in for WebStar from Quarterdeck Corp. of Marina del Rey, Calif. (see 07.29.96, Page 14). The software is designed for Webmasters who are serving a site via a modem line. It takes advantage of the faster connections of Internet service providers, the company said. To use FireSite, an administrator rents space on a service provider's FTP server. FireSite transfers graphics and multimedia files to the FTP space and automatically rewrites HTML codes referring to those documents so that only text files are transferred from the modem-connected server.

FireSite is available in a $499 regular version as well as an $849 multimedia version.

ClearWay Technologies Inc. of Boston can be reached at (617) 973-5001 or (888) 552-5327; fax (617) 973-5025; info@clearway.com; http://www.clearway.com.


Netscape: FireSite: Remote Server Setup
Location: http://clear1.clearway.com/admin.fire$class=server&id=0x8000002
What's New? What's Cool? Handbook Net Search Net Directory Software
standard edition FireSite Administration
FireSite Setup Reports Help
Remote Setup Security Setup About FireSite
Web server 204.96.36.43: HTTP access allowed and successful.
Connection Speed T3 (45Mbps)
Storage Capacity 10240 Kb (672K used/9568K available)
To FTP your files onto the remote server:
FTP Host Name: 204.96.36.43 ftp.my-isp.com
FTP UserName: fireuser jsmith
FTP Password: •••••• (your FTP password)
FTP Directory: /firecache/demo/ /~jsmith/
To access your remote files through the web:
WWW Server Name: 204.96.36.43 www.my-isp.com
WWW Directory: /firecache/demo/ /~jsmith/

Lasso CGIs tie FileMaker data to Web

By Joanna Pearlstein

Blue World Communications Inc. has unleashed Lasso, a family of tools for integrating Claris FileMaker Pro databases with the World Wide Web.

The Lasso family includes Lasso Lite, a free CGI (Common Gateway Interface) that lets users add and search FileMaker Pro records from their browser. It can be downloaded now from Blue World's Web site.

Due in September, Lasso 1.0 builds on the Lite version's features by adding the ability to add, modify, delete, sort and search FileMaker Pro records as well as execute FileMaker scripts. The product will customize HTML formatting on a record-by-record and field-by-field basis, and it will let administrators restrict documents by user, group or Internet Protocol address. The product can also be remotely administered using Web publishing tools.

Blue World President Bill Doerrfeld said that while features for the upcoming Lasso Pro have not been finalized, he expects the product will provide the same features as Tango from EveryWare Development Corp. of Mississauga, Ontario, except that users will be able to drive their FileMaker database from within a Web browser.

Pricing for Lasso and Lasso Pro has not been set.

Blue World Communications Inc. of Issaquah, Wash., can be reached at (206) 313-1051; fax (206) 313-1056; sales@blueworld.com; http://www.blueworld.com. □

AOL tops $1 billion in annual revenues

Amount tripled from year before

By Leander Kahney

America Online Inc. last week became the first online service to earn annual revenues of more than $1 billion. The success may help to brighten the shadow cast by the service's outage on Aug. 7, which made news nationwide.

In its annual financial statement, AOL reported revenues of $1.09 billion for fiscal 1996, which ended June 30. The company said the year's revenues nearly tripled compared with 1995, when the company earned $394 million.

Vienna, Va.-based AOL said the last quarter of 1996 was especially profitable, setting new company records for revenues, gross profit margins and share dividends. AOL earned $21 million on revenues of $334.5 million during the fourth quarter. However, an $8 million settlement of charges relating to past billing practices (see 07.15.96, Page 18), dropped the fourth quarter's net income to $16 million, or 14 cents per share. During the same quarter in 1995, AOL's earnings were $5.3 million on revenues of $152 million.

AOL continues to be the world's largest commercial online service, ending the fiscal year with an estimated 6.2 million customers in five countries. The company started the year with 3 million subscribers in the United States alone, gaining nearly one-half million customers in Germany, France and the United Kingdom through acquisitions and alliances with Internet service providers.

However, this growth comes at a cost, and Mary Doyle, a senior analyst with IDC/Link of New York, said she was concerned about the company's policy of offering all its content for a flat hourly rate. "I don't think it's sustainable when most users look at only half a dozen of those services," she said.

Doyle said she was also worried about AOL's reluctance to discuss the details of its $212 million annual marketing costs. "No one knows how much it's costing them to get subscribers," she said. □

Big transfer-speed boost on way for 4-Sight Fax 4.0

By Stephen Howard

A sixtyfold improvement in transfer speed tops the list of improvements that are coming in October for Version 4.0 of 4-Sight Fax. The multi-user fax software from 4-Sight L.C. will also gain its first departmental billing controls.

Version 4.0 will be based on a new version of 4-Talk, the custom protocol that transfers fax files from the client to the 4-Sight server. According to the company, the protocol upgrade will be 60 times faster at transferring large files than Version 3.1 (see 11.13.95, Page 22).

In addition, both inbound and outbound fax documents will be protected so that only senders can view their own faxes in the 4-Talk queue.

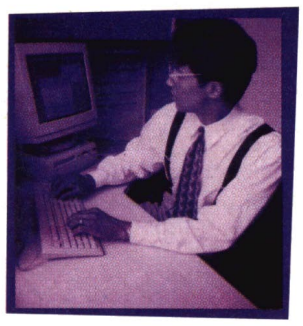
The clients and servers will support new billing codes, so that organizations can track sent faxes. A billing code book, similar to a fax address book, will also be added.

Other enhancements include an increase in the maximum number of custom cover pages, the capability to delete multiple fax entries from a message queue with one operation and AppleEvent scripting controls that allow for multiple outgoing fax folders on different machines.

The software will remain priced at $595 for one single-line server and five users, and $795 for a single-line server and 10 users.

4-Sight L.C. of West Des Moines, Iowa, can be reached at (515) 221-3000 or (888) 447-4448; fax (515) 224-0802; 4sight@cesoft.com; http://www.4sight.com. □

MacTemps has job openings all over the country. Here are just a few:



Help Wanted

technical positions available

Atlanta, GA

Network Administrator
Set up 6 Macs on an existing token ring network, connecting all to a stand alone PC. Short-term assignment for this insurance firm near Perimeter Mall.
Job # ATL 7018 **$20/hour**

Computer Media Coordinator
Roll out PowerPoint presentations on laptops for sales reps. Director experience needed too. Some design involved for this check printing firm in Decatur.
Job # ATL 7028 **$30-40K/year**

Boston, MA

Programmer/ Technical Lead
Seeking expertise with C, C++, Java, and VRML. Software development experience required. This permanent position is part of a team creating an Internet browser based on HotJava for the UNIX platform. Create a virtual classroom. Spend a year in Stockholm, then return to this client's brand new location near the Science Museum in Boston.
Job # BOS 58149 **$60-120K/year**

FoxPro Developer
Experienced software engineer sought with expertise in FoxPro for a permanent development position at an international firm's Boston location. Experience developing client-server applications a must.
Job # BOS 58149a **$40-50K/year**

PC Tech Support Specialists
Applicants sought with PC hardware & Windows 95 software expertise for end-user support positions. Applicants should have a broad range of software skills (MS Office, etc.). In-depth troubleshooting skills needed. Communications skills are crucial. Must have hands-on experience installing hardware, network devices and other peripherals. Connectivity knowledge is essential, including TCP/IP, modems, settings, remote access (dial in/out), and related software. Possible temp-to-perm positions.
Job # BOS 63393 **$18-30/hour**

Chicago, IL

Network Engineer
Great opportunity to work for a fast growing Internet consulting company! Opportunity is to help Fortune 1000 companies get online. Novell and NT/Server experience is a must, as well as extensive network evaluation and administration.
Job # CHI 10835 **$45-55K/year**

Programmer
Work in Pascal or C and Code Warrior for Macintosh. Seeking a creative problem-solver who can work quickly and efficiently.
Job # CHI 78615 **$35-50K+/year**

Cleveland, OH

Multimedia Artist
Seeking high tech Web developer. Experience required: Director, Shockwave, CGI, Access, C++ and Java.
Job # CLE 1008 **$35K/year**

Detroit, MI

Macintosh Technician
Temporary position at Metro Detroit advertising agency. Installations and troubleshooting of hardware and software.
Job # DET 78657 **$18-22/hour**

Los Angeles, CA

Network Tech and Consultant
Person who can make appropriate recommendations on upgrading existing systems, from 10baseT to 100baseT, and add new PCs and Macs to the network. Person must also know prepress and printing press machines (Lino, etc.).
Job # LA MS7000 **$25/hour**

Tech Support
Supporting 180 users (120 Macs, 60 PCs). Must have thorough knowledge of Mac OS (7.5.3 update #2), PCI PowerMac 7600s, and DOS/Windows OS. Troubleshoot system set-ups, reconfigure and troubleshoot networking problems (Ethernet/AppleTalk). Light Novell and strong MS Office package knowledge needed.
Job # LA 6563 **$20-22/hour**

Miami, FL

Database Programmers
Programmers wanted to develop 4D front-end links for Mac client machines and Oracle back-ends for UNIX server environments.
Job # MIA 1193 **$40-60/hour**

New York, NY

Help Desk
Hip, nationally-known cable/communications company needs temporary help desk personnel with cross-platform OS skills (Windows 95, Windows 3.1, Mac OS), light Novell and MS Office support ability.
Job # NY 25101 **$23/hour**

Help Desk
Corporate client needs temporary help desk support for online group. FTP, HTTP, Gopher, et al, to help researchers find data for Internet service.
Job # NY 25115 **$25/hour**

Minneapolis, MN

Sr. Network Administrator
Large printing company needs two Mac network administrators. Support end users on-site and over phone with h/w, s/w, & printing issues. Need knowledge of troubleshooting issues related to printing and prepress: stripping, layout, imposition and imagesetters. Network protocol experience also required.
Job # MN 5804 **$35-45K/year**

Help Desk
Large communications company needs a Windows 95 troubleshooter. Must know and understand compatibility issues with Windows 95 and s/w, printing problems. Work in large IS department as the primary Windows 95 user issues contact.
Job # MN 5805 **$17-20/hour**

Philadelphia, PA

Programmer
High level permanent development position. Need 3+ years experience using C, C++, and Pascal, a networking background and exposure to Code Warrior. Network experience should include AppleShare & TCP/IP protocols and Open Transport in a client/server environment.
Job # PHI 5665 **$60K+/year**

Database Programmers
PowerBuilder gurus needed for permanent opportunities. 2+ years programming and database design & maintenance experience a must. DE Valley area.
Job # PHI 6152 **$50K+/year**

Programmer
Heavy development experience in a C/UNIX environment needed. 2+ years hands-on experience required for this permanent opportunity in DE Valley.
Job # PHI 6154 **$50K+/year**

Database Programmer
PC relational development using Visual Basic. 2+ years experience needed for this DE Valley permanent opportunity.
Job # PHI 6153 **$50K+/year**

Philadelphia, PA (cont.)

Mac/UNIX Technician
Work in an electronic prepress department. Knowledge of UNIX servers and C++ needed. Helios a plus. ISDN and other high speed transfer protocols knowledge a must. Support QuarkXPress, Illustrator and Photoshop. Permanent opportunity in Delaware County Area.
Job # PHI 5712 **$35-40K/year**

Computer Circulation Manager
Seeking experienced individual with creativity, vision & drive to manage Mac, IBM, and Novell prepress systems. Analyze current systems, recommend upgrades in equipment and software. Permanent opportunity in the Montgomery County area.
Job # PHI 5971 **$24-40K/year**

PC LAN Administrator
Seeking MS Access experience. Maintain, update and troubleshoot multiple databases. Troubleshoot a Windows 95 LAN with Sybase SQL server. TCP/IP proficiency needed. Temp to perm opportunity in Western Montgomery County.
Job # PHI 6077 **$40K+/year**

Interactive Designer/Illustrator
Looking for a graphic artist/illustrator with Web design skills. Work on-site using Illustrator and Photoshop. Animation experience a plus. HTML experience preferred and knowledge of file formats (GIS, GIF, bitmaps) especially those best for faster downloading. Temp to perm opportunity in the Chester County area.
Job # PHI 6133 **$25+/hour**

Phoenix, AZ

System Integration/Network Support
Macintosh value-added reseller in Phoenix needs networking guru with AIX, Windows NT and some Novell experience. Scripting or database development a plus. Sales support, problem solving, system design and maintenance.
Job # PHOE 1194 **$35-60K/year**

San Francisco, CA

Programmer
Work for an East Bay developer. 2-3 years corporate experience writing Mac applications in C/C++ needed. Work with Script Manager, TextEdit, WorldScript, and File Manager. Knowledge of Windows API and/or the Mac Toolbox a must.
Job # SF 48245 **$30/hour**

MIS Assistant
For an East Bay pharmaceutical company. Installation, troubleshooting, inventory, & training. Knowledge of Mac OS, Ethernet, AppleShare and MS Office needed. Any experience with Windows or Novell NetWare a plus.
Job # SF 48266 **$25/hour**

PC Technical Support
For small SF consulting firm. Troubleshooting primarily at client sites. Must have good customer service skills and be familiar with Windows 95 and Windows NT.
Job # SF 48269 **$28K/year**

Associate Systems Specialist
For South SF biotech firm. Frontline technical support. Cross-platform support for system software and business applications. Must have excellent customer service skills.
Job # SF 57983 **$17-20/hour**

San Diego, CA

Network Manager
Mac computer systems specialist with extensive experience setting up and maintaining networks needed. Ethernet & Appletalk protocols required. Windows NT and PC connectivity experience a plus. Must be able to troubleshoot problems for up to 60 users.
Job # SD 4430 **$40-45K/year**

Technical Support Specialist
Two full-time opportunities available. Positions require 5 years experience providing support via telephone, e-mail and fax. Strong Mac OS, software, & Internet protocols experience all a must. Windows, UNIX and X Windows required. B.S. in Computer Science or equivalent degree preferred.
Job # SD 4413 **$40-45K/year**

Lingo Programmer
Long-term project open immediately for a Lingo programmer. Work for a software developer in North County. Minimum of 1 year corporate experience required.
Job # SD 4405 **$18-20/hour**

Technical Support
Phone support for mostly Mac users. Must have knowledge of edutainment and game software. Must be able to diagnose extension and other problems via phone. PC experience a plus.Strong customer service and communication skills a must. This entry-level position has opportunity for growth. Travel 2-3 times a year to trade shows.
Job # SD 4431 **$25K/year**

Silicon Valley, CA

Database Developer
An event planning firm in San Mateo needs a Filemaker Pro developer. Duties include designing & developing the database, communicating with end-users for feedback, and reporting back to the director. Project oriented assignment.
Job # SC 57997 **$16-18/hour**

Macintosh Technician
A Santa Clara electronics firm needs a Mac specialist. Duties include installation of Mac h/w & s/w, troubleshooting both in-house & for their customers around the Bay Area. Windows and UNIX knowledge a plus.
Job # SC 41482 **$16-18/hour**

Macintosh Specialist
A digital entertainment firm in Mt. View is looking for candidates with Mac, Windows NT, Sun, & UNIX experience. Duties include troubleshooting, video manipulation, and HTML & CGI scripting.
Job # SC 40967 **$40K/year**

St. Louis, MO

Macintosh Systems Support Specialist
Must have extensive knowledge of the Mac OS and 2-5 years experience supporting business users in networked environments. DOS and Windows 3.1 experience required.
Job # STL 56 **$30-40K/year**

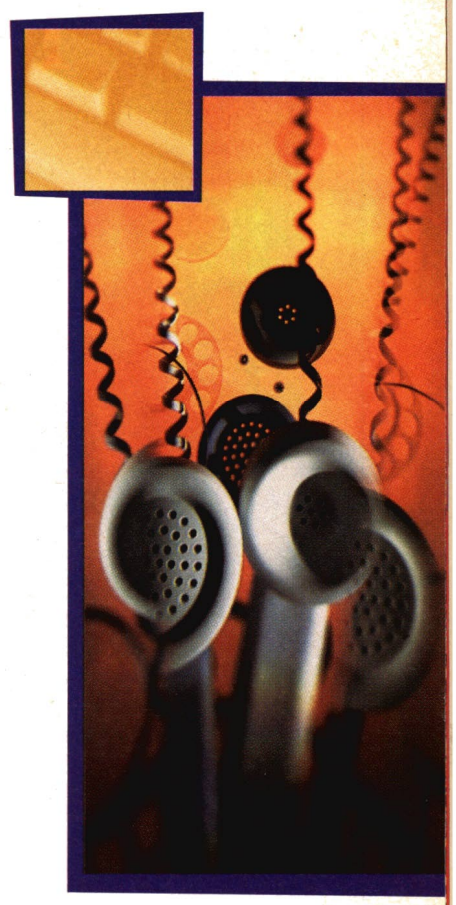
Seattle, WA

Technical Editors
Edit a multimedia project. Must have strong computer literacy.
Job # SEA 78713 **$15-20/hour**

Programmer/Network Analyst
Visual Basic developers and server specialist needed for a large Internet project.
Job # SEA 57725 **$20-30/hour**

Technical Writer
Writer/editor for documentation of major software agent services. Must have a successful product-shipping record.
Job # SEA 57723 **$25-30/hour**

Technical Editor
Physical Science and Life Science editors needed for a multimedia project. Must have a science background and proven experience.
Job# SEA 58134 **$15-17/hour**



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CALL 1-800-MACTEMPS

TeleFinder supports HTML 1.1

By James Staten

Spider Island Software Inc. in July shipped Version 5.1 of its $675 Web and BBS server, TeleFinder.

The company said Version 5.1 is the first Mac Web server to support HTTP (Hypertext Transport Protocol) Version 1.1. HTTP 1.1 includes a feature called persistent connections and adds Internet Protocol virtual hosting, which lets a Webmaster assign a custom domain name for multiple home pages, rather than requiring a separate IP address for each Web site.

The free update supports server-side includes, which let Webmasters selectively adjust a Web page's content or serve an alternate page based on the capabilities of the user's Web browser.

Spider Island said the product's new RAM caching features improve server performance up to 400 percent.

Spider Island Software Inc. of Irvine, Calif., can be reached at (714) 453-8095; fax (714) 453-8044; info@spiderisland.com; http://www.spiderisland.com. □

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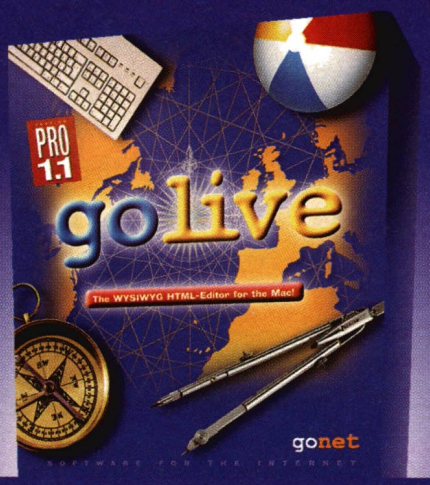
NETWORK TRAFFIC

- **Cyberdog 1.1 moves to 680x0**
- **RealAudio Player gets radio update**

Apple this month released a free beta version of Cyberdog 1.1; the new version is the first 680x0 incarnation. It also supports Netscape Navigator plug-ins and Java applets. It is available from the company's Web site at http://www.apple.com. ... Seattle-based **Progressive Networks Inc.** this week will roll out RealAudio Player Plus, an updated version of the company's free RealAudio Player. Priced at $29.99, the new version offers an interface similar to that of a car radio and sports scan and preset buttons. The update lets users better control the multimedia material they receive over the Internet, Progressive said. ... **Zoom Telephonics Inc.** of Boston unveiled the ComStar EX, an external modem combining 33.6-Kbps data transmissions and a 14.4-Kbps fax. Available now, the $259 device also offers a full-duplex speakerphone, Caller ID, surge protection, and simultaneous voice and data. ... **Foresight Technology Inc.** of Fort Worth, Texas, this month shipped CalendarSet/CGI 1.1, a set of Web server add-ons for CalendarSet, the company's 4th Dimension scheduling routines. The new CGIs (Common Gateway Interfaces) add features for security, text searches, calendar appearance options and e-mail message scheduling. The update is free to owners of CalendarSet/CGI 1.0, which costs $149. ... **Digital Ocean Inc.** of Lenexa, Kan., has released a pair of new wireless products. The $2,500 Starfish II Ethernet Access Point connects to wired networks and comes with an external antenna for extending indoor and outdoor range. The $799 Manta 10BASE T station lets users connect to wireless networks at 10-Mbps speeds. □



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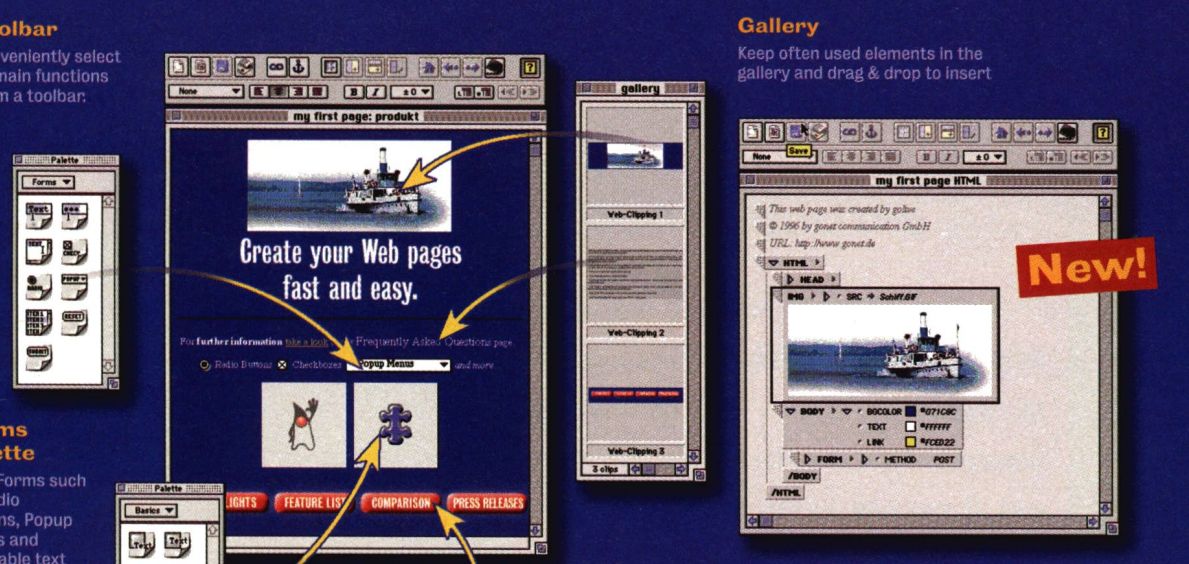

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SOFTWARE FOR THE INTERNET

Internet Explorer for the Macintosh. Unlock the power of the Internet with this awesome browser. Small, fast, and designed for the Mac, Internet Explorer supports a very rich multimedia experience. Plus, it's really easy to set up and use. Now the excitement of the World Wide Web is at your fingertips.

Internet Assistant for Microsoft Excel & Internet Assistant for Microsoft Word. Now you can set up shop on the Internet or just publish a personal web page with tools you already know how to use. These additions to Microsoft Excel 5.0 and Word 6.0.1 easily turn your documents into HTML with just a few mouse clicks.

Everything to gain.

Word 6.0.1a Update. If you are still running Word 6.0 you will definitely want to upgrade your software to this much improved version. Word 6.0.1a update, introduced last fall, will enhance performance and stability, speed up your boot time and word counts, improve font handling and much more.

System 7.5 Update 2.0 from Apple Computer. Now you can get the most from your Mac with Apple's free update for System 7.5 users. This update will improve overall stability and performance and, if you use Virtual Memory on your PowerMac,™ launch your applications up to four times faster than ever before.

Now you can download Microsoft's new Internet Tools and discover your Mac's Internet capabilities. Free.* Microsoft's commitment to the Mac means you will be browsing, creating, and accomplishing more in no time. To obtain Microsoft's Internet Tools, and the System 7.5 Update 2.0,

Nothing to lose.

{THEY'RE ALL FREE.}

described on the opposite page, please visit **//www.microsoft.com/macoffice/**. Or to order a free Microsoft Empowerment Pack for the Mac, which includes the software listed above on a CD-ROM plus a special offer on RAM from Kingston Technology, call 800-469-6520 Dept. MCA.

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BPA INTERNATIONAL

A grand opening

Skeptics of component software, and OpenDoc in particular, had to question their own doubts after this month's Macworld Expo. About 20 working OpenDoc, or Live Objects, parts and containers were running at the Apple Pavilion and in the Developer Central booth. Apple promised that by January's expo more than 100 Live Objects components would be ready for prime time.

Adding to sheer volume is the quality of the Live Objects software. For example, Digital Harbor's Wav word processor has been characterized in initial reviews as "elegant" and "full of nice innovations." But it's the $49 price that will attract much of the attention. If you want more, you can tack on parts to Wav as you need them for $5 to $25 apiece. Another OpenDoc entrant, Adrénaline Software Inc., demonstrated a Microsoft Excel-compatible spreadsheet and an impressive 3-D charting program.

While show goers beat a steady path to the booths showing these and other Live Objects applications, persistent skeptics doubted the wisdom of taking on the Microsoft Office suite. But others have noted that solid productivity applications are essential for OpenDoc to succeed. Still, people wondered if anyone would build them in the face of Microsoft Corp.'s market advantage.

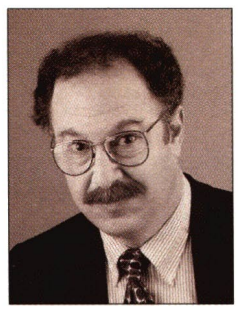
They have. They work. They're inexpensive. And because they are Live Objects parts, they are fabulously fungible.

Along with advances in product development, OpenDoc got two boosts in marketing and distribution at expo. First, the founding of the Component 100 organization creates a market-focused vendor group dedicated to putting Live Objects software into users hands. This group is an excellent adjunct to CI Labs, which concentrates on OpenDoc technology and certification. Finally, Apple revealed that it would underwrite OpenDoc developers' initial costs to get their products on C|Net's online commercial software marketplace.

We think OpenDoc has now emerged as a leading contender in the component architecture race. In fact, now we can say that the race is real. □

THE SECOND DECADE HENRY NORR

We can do without hype, but not without the facts



Judging by the number of crucial questions to which Apple had no answers at Macworld Expo, the company's new Mac OS rollout plan seems, at least for the moment, more like a public-relations ploy than a convincing technical strategy.

Since spring, Apple has talked about delivering some features of the operating system formerly known as Copland in the form of incremental updates to System 7.5 until the full Mac OS 8 was finally ready to roll. The new plan, reportedly devised just days before the expo by CEO Gil Amelio and Chief Technical Officer Ellen Hancock, calls for *all* of the features planned for Mac OS 8 to reach customers as quarterly or half-yearly updates.

On the surface, this scheme is appealing. Users are told they will get the new technologies as soon as they are ready, without having to face a single massive and disruptive upgrade of their systems. Apple can proceed in an orderly way to do what needs to be done and to market what it actually has, instead of struggling constantly to defend itself from hostile jeers about missed deadlines.

Fly in the ointment

The problem with this rollout approach is that it does not give Apple's constituents much to go on. Large customers particularly — in education, in the graphic arts and in corporate settings — need realistic information so they can plan budgets and deployments. A couple of examples: When will the new OS cease to work on 680x0-based Macs? And when will today's extensions need to be replaced?

For developers, the issues are even more critical. They can't plan products that take advantage of Mac OS 8 features without knowing what's coming when. All they've been told so far is that the long-anticipated, long-delayed Developer Release 1 seeding has been canceled.

Mega-uncertainty

Apple officials have taken to speaking sneeringly of "big bangs" and "mega-events," Amelio's terms for the now-discarded notion of delivering a new OS in a single, heavily hyped release, à la Windows 95. The problem is that fueling the marketing machinery *isn't* actually the main motive for the traditional OS delivery model. The determining reality is that an OS is — as the term itself suggests — a *system* of interdependent technologies, not just a pile of isolated features.

Concretely, the essence of Mac OS 8 is its innards: the new microkernel, I/O and memory architectures, driver model, and so on. It may be possible to deliver some of these technologies as separate modules, but on the whole, they depend on each other — none will work without the others.

These are the technologies that promise customers what they want most from Mac OS 8: stability and performance. The release that includes them is the real mega-event, whether it's marketed as such as or not. And both customers and developers still need to know when it's coming. □

Henry Norr, editor emeritus of MacWEEK, welcomes feedback in the MacWEEK forums on CompuServe or at henry_norr@macweek.com.

LETTERS

Photo CD half there

I read your story about the advantages of having photography put onto Photo CD instead of being professionally scanned to disk (07.15.96, Page 31). In this article, Melissa Longfellow said that 95 percent of the work is done by going to Photo CD.

As a professional scanner operator, I feel the ratio is more like 50 percent. With Photo CD, the photographic image is digitized and separated into the RGB color space. The half that is missing is adjusting the image with the proper dot percent values so that it matches appearance in printed form. Professional scanner operators produce a separation that has the proper detail, gray balance, color and sharpness that will reproduce correctly on the printing press.

I have seen many Photo CD scans that may look OK on a monitor but not when proofed on a high-end proofing system. The phrase "But it looked great on my monitor" is heard many times at the printer.

Somewhere along the line Longfellow's images need to be adjusted for the printing process. This is especially true for a magazine printed on a web press.

Randy Zaucha
San Francisco

Retail rules, Henry

Where does Henry Norr get these ideas? I must vehemently disagree with most of his comments about Mac software in retail outlets (07.22.96, Page 20). Telling current and potential Mac users to use mail order to meet their needs was the wrong answer last year, and it is still the wrong answer this year. Apple has targeted the wrong outlets for its push to get Mac software on store shelves. Throwing millions of dollars to the Incredible Discount MegaCompuCitySoftwareOutlet and Kitchen Appliance Paradise stores will help but little. A few more popular titles on the shelves of the megastores won't overcome the inertia of an indifferent sales staff whose goal is to push the boxes with the biggest spiff out the door.

While Norr says "no rational retailer [will] give equal treatment to [the Mac] platform," the irrational among us are already giving 100 percent of our attention to the platform that makes computing fun and office productivity a reality.

We are one such Mac-only retailer. We have put our money where our mouths are and have opened an independent Mac-only software and accessories retail operation. We feature all the Macintosh software we can afford to put on our shelves — currently more than 500 titles, and growing daily. And we are succeeding.

We have exceeded our admittedly modest first-year goals in our first quarter of operation. You see, Henry, most people like to be able to check out the product, heft the box, read the back of the package, try out a demo and talk with someone about their needs. Having an enthusiastic, knowledgeable sales staff that loves the Mac and can speak to the customers' needs does work — big time. Even in a PC-centric town like Tucson, Ariz., a Mac-only enterprise can succeed.

If Apple wants to reinforce the notion that the Mac is an unsupported, washed-up, has-been computer, then pushing the concept that "the Mac is the platform you can get software for without going to the store" will surely advance the Mac's demise. The Mac software mail-order system may be a marvel, but it is a marvel only because Apple allowed the retail channel to wither. When mail order is the only option for 50 percent or more of the target market, of course mail order will dominate.

So, Henry, after you dig out from the latest pile of mail-order catalogs, all advertising the same old things, take a trip and check out the real world. Talk to some real, would-be Mac buyers. Then take a short detour to Tucson. You can work on your tan, practice some golf and maybe find time to visit our retail shop where the Mac rules and the customer is still king.

Diane Slaven, owner
MACSource Inc.
Tucson, Ariz.

Get smart, MacWEEK

Your article on schools and the Web by Mark Hall (08.05.96, Page 85) is a much-needed focus on technology and education for MacWEEK. It's a start. Your readers must certainly include many educators knee-deep in education network administration and education software evaluations who would clearly benefit. A clear focus by MacWEEK on education technology needs for schools would give educators the weekly ammunition they need to better update the slow development of technology integration across the country.

Jim Lafave
Educational technology director
Norfolk Public Schools

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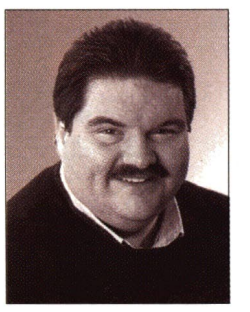
THE MAC MANAGER DON CRABB

Look before you leap, but don't hesitate to jump

The most popular and by far the most outrageous marketing stunt at the recently concluded Macworld Expo in Boston came from upstart Macintosh clone maker Power Computing Corp. Emphasizing its new line of PowerTower Pro machines, Power Computing festooned a giant industrial crane with a huge PowerTower Pro banner, placed it just down the street from the World Trade Center (expo central) and offered bungee jumps to conference attendees.

Don't you just love these guys? They've got 225-MHz iron to push, so they set up a 225-foot bungee crane. When Power Computing says it intends to kick Intel's keister, it isn't kidding around. It got in our faces at expo and screamed its "fastest is bestest" strategy at the top of its lungs. And if we were too stupid, dull or slow to get its point, it wasn't because Power Computing didn't give it the full-metal-jacket treatment. Kudos to CEO Steve Kahng and his team.



Please pass the tea cozy

By comparison, Apple's Boston exploits were tepid. I got a bigger buzz out of the afternoon tea and crumpets served at the Four Seasons and Ritz-Carlton hotels (where many of the Apple cognoscenti held court) than I got from any Apple expo event.

Apple's stealth marketing team once again trotted out the usual parties, breakfasts, keynotes and other blahdom, to mostly invisible effect outside the immediate attendees. Meanwhile, Power Computing customers were bungee jumping in front of whirring TV cameras from ABC, CNBC, CNN and local TV stations.

True, Gil Amelio's and Guy Kawasaki's keynote speeches were well-received. But the Mac community is so starved for anything approaching good news that Amelio could have gotten a standing ovation by simply demonstrating his pulse (a problem for previous Apple CEOs).

As much as I liked Kawasaki's keynote, which showcased hot Mac technology and products, it was done in front of a small, faithful crowd, including gobs of captive press who are going to write about Apple regardless. Why not turn Kawasaki loose in a much bigger context at the next expo? Hell, why not hire out 3Com or Fenway parks and have him do his shtick in front of tens of thousands of Apple customers? That's event marketing. Further, why didn't Apple use Kawasaki to plug and put the right spin on its biggest news of the expo?

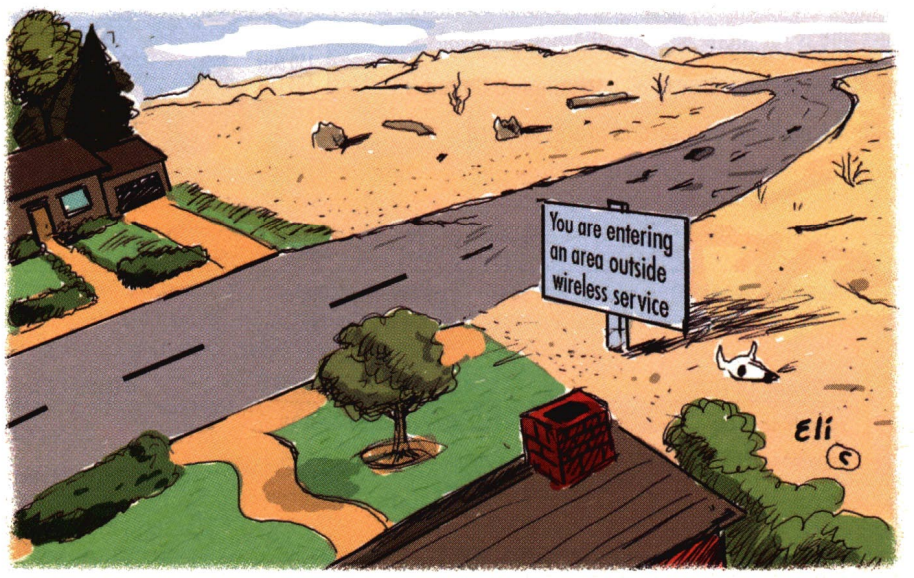
System 7.9.9.9.9

That news, of course, is that we're being treated to another system software strategy. I call the latest ploy the System 7.9.9.9.9 strategy, because it lets Apple release OS tidbits as it gets them done, in semiannual main-release fashion, with bug fixes in between.

This completely guts its historical monolithic Mac OS model. It probably puts off the full Mac OS 8 until 1998.

This sea change would have benefited from a huge marketing event — one that informed Apple's developers, Mac managers and customers and made them feel comfortable with the new strategy. Maybe Apple could have built a bungee tower bigger than Power Computing's and had Kawasaki, Amelio, Ellen Hancock and Marco Landi all bungee together — taking the plunge for the new OS strategy, so to speak. □

Don Crabb welcomes comments at his Internet address decc@cs.uchicago.edu. You can also check out his home page at http://cs-www.uchicago.edu/~decc/.



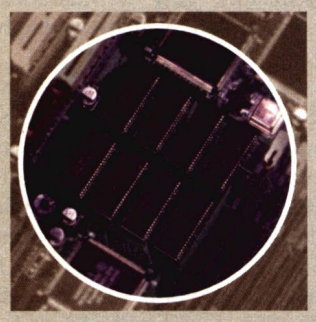
Comments? Ideas? Contact Eli at elitoons@aol.com

For years, creative professionals have relied on award-winning UMAX scanners to capture the high quality images they demand as an essential part of their creative solutions. Now, UMAX has come full circle by offering them the ultimate computers on which to realize their vision...

See us at Macworld Boston WTC booth #5334

Introducing the SuperMac S900

Designed from the ground up specifically to meet the needs of the design professional. We've kept all the best things you like — the familiarity and ease-of-use of Mac OS and compatibility with all your favorite software — wrapped it all up with the raw power of a 604 150MHz PCI-based design and delivered it at a price that can't be beat. Many unique features of the new S900 have been designed to specifically eliminate performance bottlenecks that have long troubled the market.

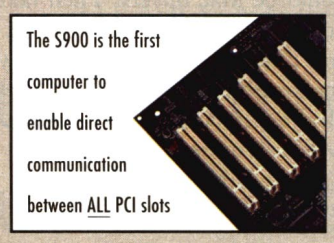


1 Interleaved Memory

Every S900 comes standard with 16MB of interleaved memory on the motherboard for fast memory access and best system performance. Others require the purchase of additional DIMMs to implement memory interleaved.

3 Exclusive PCI-to-PCI Bridge

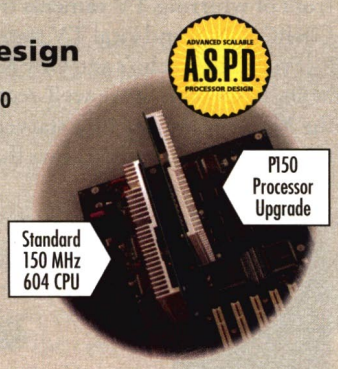
Not only does the S900 have an amazing 6 PCI slots, it is also the first to enable burst communication between them.



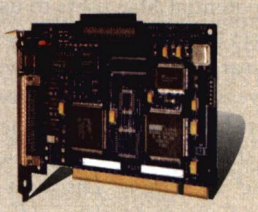
UMAX's exclusive PCI-to-PCI Bridge design enables direct communication between all PCI cards with the greatest performance, no matter which slots they're inserted in, also making it more expandable and easier to configure.

2 Advanced Scalable Processor Design

UMAX's exclusive A.S.P.D. provides easy upgradeability to dual processors or for higher speed processors as they become available. This modular configuration costs less and is far more flexible, allowing programs such as Photoshop to increase its performance up to 80% with the addition of a second processor card.



4 E100 I/O & Networking Card



To increase performance even further, UMAX offers the ultimate combination upgrade that gives you both Ultra-Wide SCSI and 100Base-T on one easy-to-install PCI card. The 100Base-T boosts data transfer over networks up to ten times the speed of standard 10Base-T connections. Ultra-Wide SCSI provides 16-bit wide data access at rates up to 40MB/sec. (4 times the speed of regular SCSI)

	MODEL		Processor Type	CPU Speed	Hard Drive Capacity	PCI Slots	Onboard RAM	Level2 Cache	CD ROM Drive	Graphics Card	Drive Bays	PRICE*
1	SuperMac S900L	Tower	604	150 MHz	2 Gbyte	6	16 MB	512 K	6.7x Speed	4MB VRAM	5	$ 4395

* Suggested Retail Price

	UPGRADE OPTIONS		PRICE*
2	SuperMac E100	Extended Performance Ultra-Wide SCSI / 100Base-T	$ 495
3	SuperMac P150	604-150 ASPD Processor Upgrade	$ 995

* Suggested Retail Price

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▸ ASANTÉ Net Doubler™ ▸ MICROMAT TechTool™ Diagnostic ◂

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MATHEMATICA GOLD

The velodrome used in the 1996 Olympic Games was designed in Mathematica as 236 unique sections that snap together.

Visual FoxPro 3.0 for the Mac is a slow, unwieldy app

By Carey Tews and Christopher Hall

Microsoft's bloated database has performance reminiscent of Word 6.

Microsoft Corp.'s Visual FoxPro 3.0 for Macintosh has finally arrived, one year after it was released for Windows. The $499 database's heritage in the mainframe and command-line worlds is still evident, even after more than a decade of evolution. Despite enhancements and snappy marketing phrases such as "rapid application development" and "full object orientation," this long-awaited port of VFP 3 is still Xbase in a shiny, new wrapper. The product's ancestry is both a big selling point to existing FoxPro users and a detriment to attracting new users.

An elephant on crutches

VFP 3.0 for Macintosh has numerous new features for database development, administration and object-oriented application development. It has form and report editors and wizards galore. There's a built-in visual project manager that lets you drill down in a "tree" view to every part of your project — a quick way to find any component. An Upsizing wizard migrates existing data to Microsoft's SQL Server when it's time to use a more robust database engine. You can accomplish almost everything in a graphical way (hence the name "Visual"). This would be great if speed, performance and economic use of screen real estate were also features.

Microsoft has entered the realm of feature bloat with VFP 3. This isn't an application development environment, it's an elephant. With arthritis. On crutches. If you thought Microsoft Word 6 was slow, you will be even more disappointed in VFP 3. On a Power Mac 6100/60 with 24 Mbytes of RAM, doubled to 48 Mbytes with Connectix Corp.'s RAM Doubler, VFP 3 took about 20 seconds to start up. Users will recognize the jumpy screen redraw and color table manipulations that we have come to expect from Microsoft's ported Windows applications.

Once the application is up and running, it takes 20 to 30 seconds to do any major action, such as opening a project of average size, switching to the Form Editor or calling up the Control Builder (a sort of mini-wizard for customizing a particular kind of control). Compiling a stand-alone application was acceptably fast, as was that application's nongraphical user interface-related performance; however, if we saved the stand-alone application in the wrong folder, VFP would crash our Power Mac.

Standing room only

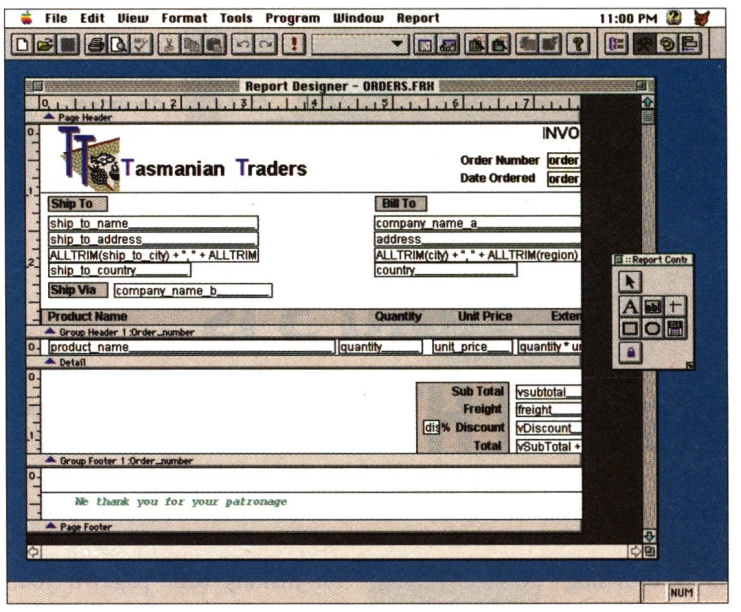
The screen is quite crowded. The Properties dialog box, which changes its contents based on the item selected on-screen, uses standard-sized fonts, so it took up a quarter of our 16-inch monitor. With the Form Designer open, we found it difficult to see the form, the control palettes and the properties list at the same time. Presumably, Windows users with Super VGA monitors and good reading glasses do not have this same problem.

Its heritage makes VFP 3 difficult for a new user with no Xbase background to learn. While you can create views and queries using SQL, you must still write any program code in Xbase. In the Form Designer you can customize many controls in at least three ways: visually, in the Properties dialog box; in the customized Builder for the control; or in a code window. Add to this the capability to combine forms and reports with views and queries, and you can see that the level of complexity of the FoxPro environment has grown by orders of magnitude. Microsoft has attempted to make troubleshooting and debugging easier with tools such as a Debug window and a Trace window, so the developer can watch forms, code and applications execute — a big help during testing. The built-in error messages leave a bit to be desired, but they are a start.

The silver lining

There are some positive aspects to VFP. The price is reasonable ($499 for new users, $299

See FoxPro, Page 36



Microsoft Visual FoxPro 3.0 for the Mac has a fairly robust Report Designer, but screen redraw problems make it difficult to use.

SCORE CARD

Visual Fox Pro 3.0 for Macintosh ◆◆

Microsoft Corp. **List price: $499***

Hits: Feature-rich upgrade for current FoxPro users.

Misses: Monolithic and slow development environment.

**Upgrades for current users, $249 after rebate; competitive upgrade, $299.*

Key ◆◆◆◆◆ *Excellent* ◆◆◆◆ *Very good* ◆◆◆ *Good* ◆◆ *Fair* ◆ *Unsatisfactory*

Mathematica 3 adds up to exceptional product

By Linda Custer

Beta Test

Anyone who deals with symbolic mathematics for typesetting, writing, calculating or graphing should become familiar with the upcoming release of Mathematica by Wolfram Research Inc.

We looked at Version 3.0b2, the final of which is due out by the end of the summer, and saw many substantial enhancements to a program that is already outstanding in the field of mathematical analysis software. The most notable improvements include better typesetting and equation entry; display features; new support for programmable palettes, buttons and hypertext links; and a reworked kernel with an improved vocabulary of special functions and integration rules.

The package will cost $1,295, up from Version 2.0's price of $995, and academic discounts will be available. Upgrade pricing has not been set.

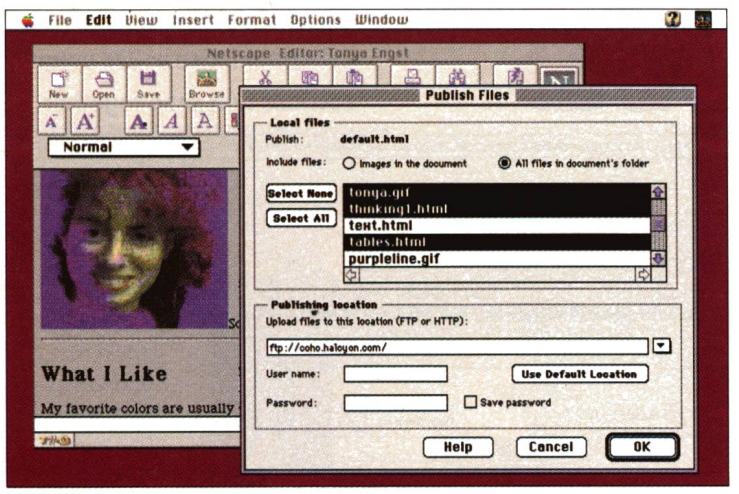
Mathematica is an environment for doing just about anything imaginable with mathematical expressions. It includes facilities for editing text, evaluating and graphing equations, programming, and organizing mathematical experiments into coherent documents.

It is available for more than 20 computer operating systems and hardware types. In addition, files created by Mathematica on any system can be understood by any other system, according to the company. Because its front end and kernel are separate, you can prepare queries on a low-level machine and then connect to a kernel running on a more powerful computer to take advantage of its higher speed.

You say you want an evolution

The last major revision of Mathematica, Version 2, was released in 1991, and a minor upgrade, to Version 2.2, was released in 1993. The only change to the Mac product since that time was to provide a

See Mathematica, Page 36



Netscape's Navigator Gold can directly upload files to any FTP or HTTP server. This feature will work through the Publish Files dialog box, with an option for uploading document-specific images.

Navigator Gold 3 is unpolished HTML editor

By Tonya Engst

For those who want the browsing features of Netscape Navigator plus a Web-authoring tool, Netscape Communications Corp. has created Navigator Gold.

The long-awaited Macintosh version of Navigator Gold comes with a number of intriguing browser features. There's support for Java applets and QuickTime; a History window; and support for an enticing collection of new HTML extensions, including snaking columns, enhanced control over white space and the capability to specify fonts.

Meanwhile, according to the company, the authoring features are specifically aimed at intranet users, although they come in handy for Internet publishing as well. Navigator Gold does not strive to provide high-end authoring features such as frames; it does, however, offer a WYSIWYG authoring environment and a convenient interface for copying pages to any FTP server or HTTP server.

We tested beta Version 3.0b5 of Navigator Gold; the final version is slated to ship later this month. Through Sept. 30, Netscape is selling a $69 subscription, good for a year's worth of updates; after that, the program will cost $79, with no updates. You can evaluate Navigator Gold free for 90 days by downloading it from Netscape's Web or FTP sites; educational and nonprofit users may run the free software indefinitely.

More than browsing

In Edit mode, Navigator Gold displays a large tool bar with buttons for file management and authoring. Uneven spacing between button groups suggests that Netscape hasn't finalized the tool bar, which unfortunately cannot be repositioned or customized.

Navigator Gold can create Web pages from scratch or through templates or a wizard; to access the templates or the wizard, you must connect to Netscape's Web site. Netscape has a good collection of templates available online, and the wizard works well for making basic pages if your connection is fast enough.

To create a Web page in Navigator Gold, you import or type page elements and then format those elements. If you're creating pages from imported HTML, beware: We had a minor problem with the beta changing our HTML. Netscape said it is addressing this issue. Navigator Gold performs the basic functions of a Web-editing package well, making it easy to style text, color pages and establish links.

Table aficionados will appreciate Navigator Gold's visual table-editing capabilities. You can create elaborate tables, complete with colored cells and cells spanning more than one row or column. The editor provides a useful way to work with tables, although it falls short in comparison with table features found in word processors. In particular, we'd like to see the capability to select an entire column at once.

Words, pictures and help

The program imports GIF and JPEG graphics, and its Format dialog box lets you control an extensive array of image attributes. Although you can position graphics directly left or right of text, Edit mode doesn't display this positioning correctly. Navigator Gold has no image-editing facilities, but you can link it to a graphics program to modify imported images quickly.

Navigator Gold's rudimentary Find and Replace feature cannot search for whole word-only patterns, use wild cards or grep, or look for styled text. Wordsmiths will also miss common text-editing tools, such as a spelling checker. Netscape has not announced any plans to include these features.

Navigator Gold has no facility for creating the new HTML extensions supported by the browser, although like most Web editors, it does provide a dialog box for entering unsupported tags. Netscape intends Navigator Gold's editing capabilities to lag a version behind the browser in terms of supported tags.

See Navigator Gold, Page 36

YoYo offers way to make Caller ID information useful

By Mark H. Anbinder

Caller ID, the technology that identifies the originating number of incoming telephone calls, is now widely available. But what do you do with the Caller ID information? YoYo from Big Island Communications Inc. is a hardware and software combination that attempts to organize that information. It feeds call data through your Macintosh to screen and forward calls, contact pagers, and keep a log of its actions. At $149.95, it's less expensive than a fancy cordless phone, and it offers an impressive array of ways to manage your calls.

Hardware/ software combo manages calls well, but needs a better database.

A bagel and a phone book

YoYo's hardware is a bagel-size device that connects to your Mac's ADB port on one side and your phone line on the other; since it sits between the wall jack and your phone, it can block or redirect calls before you ever hear a ring.

On the software side, YoYo's seamlessly integrated package includes a contact manager that's always available through a menu-bar icon. It can log your incoming and outgoing calls, dial calls for you, and — most impressively — notify your alphanumeric pager whenever you receive a call from a member of a list you've defined.

At the center of YoYo's contact manager is a log that is, unfortunately, a bit linear. For example, it's impossible to link caller names with log entries after the fact: After you create a new entry for a person, the log will identify that caller by name in future calls but will not show the name for calls that have already occurred. Big Island has no immediate plans to address this shortcoming.

Happily, YoYo includes Apple-events scripts that link its minimalist database with Claris Corp.'s FileMaker Pro, Symantec Corp.'s ACT!, and Now Software Inc.'s TouchBase and Now Contact; scriptors could use AppleScript to link other database systems. These scripts are no replacement for a full-featured, built-in database, but they should ameliorate the lack of one for many people.

YoYo's main drawback is that it works only through a single, analog telephone line. It can't handle more than one phone line, nor will it work with digital PBX systems. That's not surprising, but it's a shame, since many homes and certainly most offices have more than one phone line.

Well-supported

Of course, any Caller ID device is limited by the information the phone company sends down the line. If an incoming call is from an area with outdated equipment, or from many cellular phones, YoYo won't be able to identify the caller. Similarly, YoYo will note callers who have blocked Caller ID data from your view, but it cannot identify them. It does distinguish between the two groups, thereby allowing you to block those callers who specifically choose not to identify themselves.

Also to YoYo's disadvantage are its slightly too-short cables. Longer telephone cables are easy to find and inexpensive, but the very short ADB cable supplied with YoYo limits where you'll be able to put it. Fortunately, Big Island includes a Y-connector for the ADB cable, so that it can share a port with your mouse or keyboard.

On the positive side, YoYo comes with one of the best, most complete implementations of Apple Guide we've ever seen. The manual is likewise informative and clear; the only kind of documentation missing is balloon help.

Big Island's support staff may be small, but it's dedicated and responsive. For example, when an oddity with our pager service kept YoYo from sending pages properly, Big Island programmed a solution that should be rolled into the software by the time you read this. This and all other maintenance updates are available at the company's Web site.

Conclusions

As computer peripherals go, YoYo is neither the flashiest nor the most indispensable in a Mac user's arsenal; indeed, we've successfully enjoyed the telephone's benefits without it for more than a century. But while it's a hard-to-define product, YoYo demonstrates its worth quickly, and its faults are never more than minor inconveniences. The advantages of automated call screening, blocking and paging bring Mac-based telephony into a new era.

Big Island Communications Inc. of Cupertino, Calif., can be reached at (408) 342-8300; fax-back (800) 329-3348; info@big-island.com; http://www.big-island.com. □

SCORE CARD

YoYo ◆◆◆◆

Big Island Communications Inc. **List price: $149.95**

Hits: Tiny, easy to install; quick and friendly technical support.

Misses: Weak database; cables are too short; single-line use only.

COMPETITIVE UPGRADE

$149.95

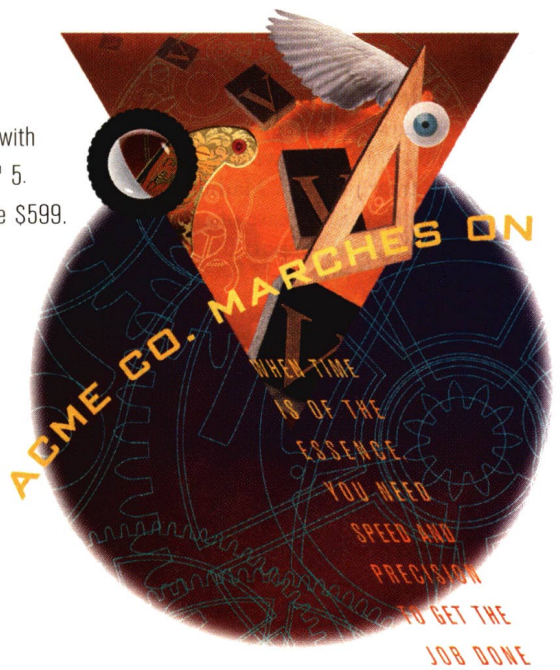
"Canvas 5 adds a host of new capabilities that make it far more than the solid illustration player it is today. For about $600, you get many of the functions that would cost almost $2,000 if you stock-piled Adobe System Inc.'s Photoshop, Illustrator and Pagemaker."
Mark Hall
Editor in Chief
Macweek
July 24, 1995

"Canvas 5, what a product! Image editing, page layout, presentation and tech illustration wrapped into one easy to use interface. This is the true Swiss Army Knife of any graphics applications out there. Deneba has done everything the graphics community has asked for."
Keith Boncek
Director of Computing
Cornell University
August, 1995

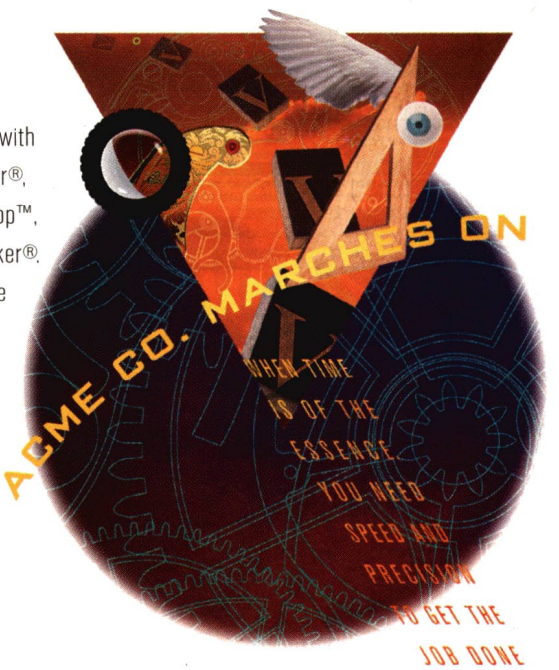
MacOS

WHICH PICTURE'S PRETTIER?

Created with Canvas™ 5. List price $599.



Created with Illustrator®, Photoshop™, PageMaker®. List price $2,385.



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BYTE Best of Class — WINNER Best Application Software
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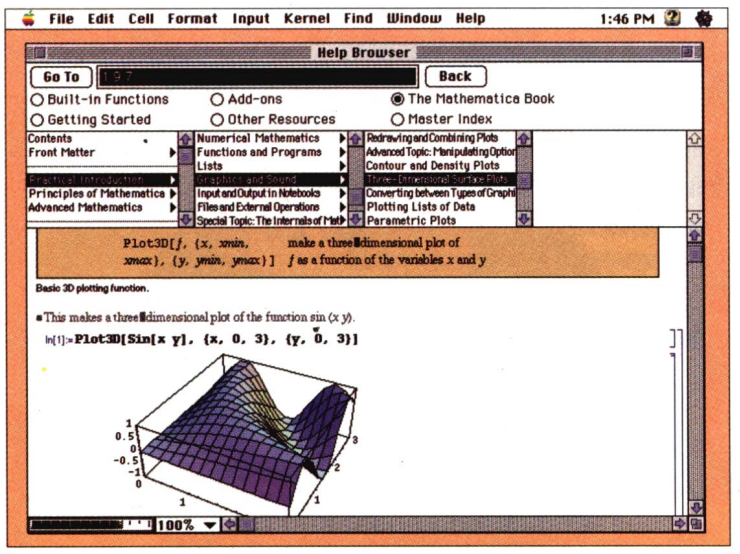

File Edit Cell Format Input Kernel Find Window Help 1:46 PM
Help Browser
Go To
Back
Built-in Functions
Add-ons
The Mathematica Book
Getting Started
Other Resources
Master Index
Contents
Front Matter
Principles of Mathematica
Advanced Mathematics
Numerical Mathematics
Functions and Programs
Lists
Input and Output in Notebooks
Files and External Operations
Special Topic: The Internals of Math
Redrawing and Combining Plots
Advanced Topic: Manipulating Option
Contour and Density Plots
Converting between Types of Graphi
Plotting Lists of Data
Parametric Plots
Plot3D[f, {x, xmin, xmax}, {y, ymin, ymax}] make a three-dimensional plot of f as a function of the variables x and y
Basic 3D plotting function.
This makes a three-dimensional plot of the function sin (x y).
In[1]:= Plot3D[Sin[x y], {x, 0, 3}, {y, 0, 3}]
100%

The comprehensive help system in Wolfram Research's Mathematica 3.0 has been expanded to include the entire text of the Mathematica Book online.

Mathematica

From Page 33

fully Power Mac-native version in 1994.

Version 3, then, incorporates many product enhancements developed over the past several years. In a move that will please loyal Mac users, Wolfram will release Mathematica 3 first on the Mac and follow several weeks later with releases for Windows and other platforms. Mathematica will now run nearly identically on all platforms, including various flavors of Windows and Unix, NeXTstep, VMS and others.

What's new

Those already comfortable with Mathematica will hardly notice differences between versions 2 and 3. Wolfram resisted the temptation to change things just for the sake of change. According to the company, all existing notebooks and other files will operate immediately in the new environment without translation. We found this to be true, and all prior formulas and calculations that we tested provided answers identical to the older versions. As before, Mathematica performs arithmetic to an arbitrary level of precision; in Version 3 it can go one step further and determine the deepest level of meaningful precision automatically.

Of the visible changes, we found all to be useful and to operate as advertised. The first group of major changes concerns typesetting and viewing mathematical formulas. You can choose to enter most symbols and expression forms by selecting them in standard or user-defined palettes, and you will be able to enter many symbols by typing new Escape-key sequences.

Once equations are entered, you have a choice of viewing them in one of three ways: a function-centered form that is hardest to read but easiest for the computer to understand, a traditional form commonly used in textbooks and easiest for humans to understand, or a Standard form that combines the two in a way that is easiest to use when mixing programming with equations. The traditional form is particularly smart about how it breaks lines and handles complex constructions. A command switches any equation from one form to another on a cell-by-cell basis, and any part of an equation can be evaluated separately.

All notebooks can now be saved in HTML or TeX format. EPS, TIFF, GIF and several other graphics formats are also supported for equations and plots.

The other, more subtle group of major changes involves programming. It is now possible to control almost every action in Mathematica through programming, including user interface elements. It's simple to set up custom palettes to organize and activate any set of Mathematica routines. Hypertext and clickable buttons are now part of all notebooks. With a modicum of experience, users can author Mathematica documents that combine crisp, clear text with active buttons and graphs.

Other changes include an enhanced set of integrals and other functions that are understood symbolically and the addition of the complete 1,400-page Mathematica reference book to the online help system.

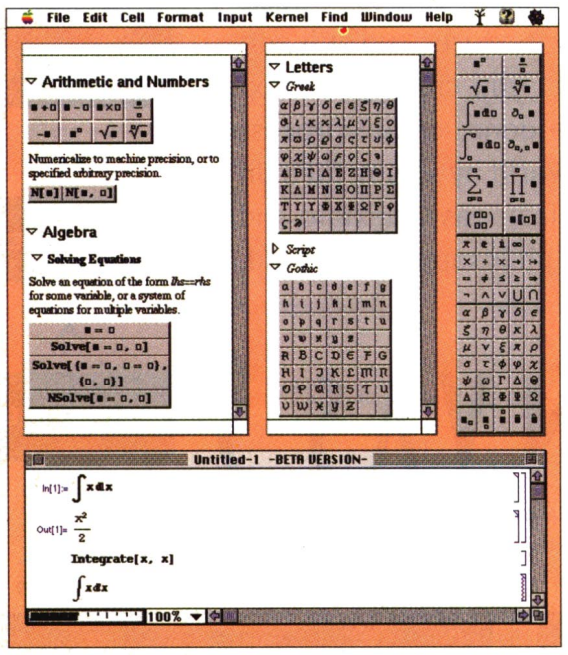
When compared with other equation-editing and calculating software for the Mac, Mathematica stands alone. While Waterloo Maple Inc.'s Maple (see 06.20.94, Page 33) has many similar features and is available for multiple platforms and operating systems, it does not allow separate operation of its front end and kernel. Prescience Corp.'s Theorist allows more free-form symbolic manipulation than does Mathematica or Maple, but it does little manipulation on its own.

One area in which Mathematica could be stronger is in its ease of creating plots. There's built-in support for sophisticated 2- or 3-D plots — including such niceties as movable light sources and surface plots — but they are available only by creating Mathematica expressions. A wizard that would take you through turning any expression into a plot would be on our wish list for the next release.

Conclusions

Mathematica 3 is shaping up to be a solid, evolutionary improvement over an already exceptional product. At press time, a Power Mac-native version was unavailable, so we were able to test only the 680x0 version. Nevertheless, we were impressed with its speed and the seamless integration of important new features into the existing Mathematica look and feel. Version 3 will be an important upgrade for current users and a compelling reason for other engineers, mathematicians, business and finance managers, and scientists to become users.

Wolfram Research Inc. of Champaign, Ill., can be reached at (217) 398-0700 or (800) 441-6284; fax (217) 398-0747; info@wolfram.com; http://www.wolfram.com. □

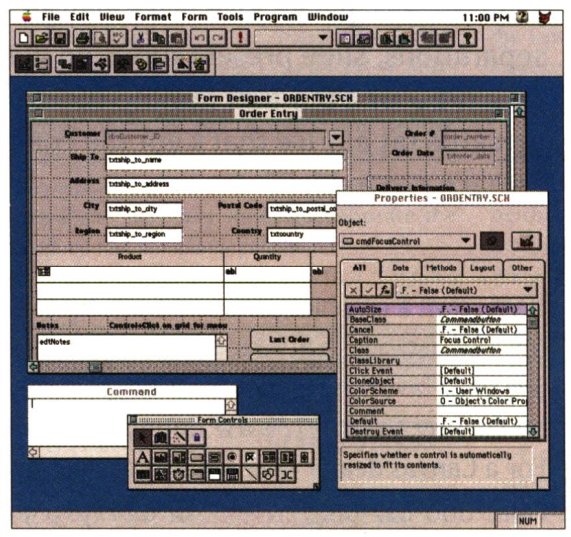

File Edit Cell Format Input Kernel Find Window Help
Arithmetic and Numbers
Numericalize to machine precision, or to specified arbitrary precision.
N[e] N[e, n]
Algebra
Solving Equations
Solve an equation of the form lhs==rhs for some variable, or a system of equations for multiple variables.
Solve[e == 0, x]
Solve[{e == 0, ... == 0}, {x, ...}]
NSolve[e == 0, x]
Letters
Greek
Script
Gothic
Untitled-1 -BETA VERSION-
In[1]:= ∫ x dx
Out[1]= x²/2
Integrate[x, x]
∫ x dx
100%

New typesetting formats in Mathematica 3 eliminate the need to enter and manipulate equations through arcane, text-based notation.

FoxPro

From Page 33

for competitive upgrades and $249 after rebate for current FoxPro users), and VFP comes with an unlimited redistribution license for stand-alone applications. Microsoft has continued its attempt to support existing Mac technologies with VFP 3. It supports the core suite of Apple events (plus "Do Script") and Apple Guide, as well as the Apple Shared Library Manager and Code Fragment Manager. VFP creates applications that run on 680x0 and Power Macs, although the development environment requires a Power Mac, leaving 680x0 users out in the cold. Of course, Microsoft's OLE and Open Database Connectivity for Macintosh (such as they are) are also supported. The voluminous manuals are good, if labyrinthine. We liked the fact that Microsoft takes the time to explain the basics of application development in VFP's documentation.



VFP's use of fonts in helper windows is poor, and we were endlessly dragging things out of the way. Here is the Form Designer with its palette and the Properties dialog box.

Conclusions

Microsoft has once again released a product that is too slow to be used on a Power Mac. If Microsoft is going to continue supporting the Mac, it must start shipping lean, customizable applications, not rehashed monoliths.

The concept of providing as many tools as a developer can possibly need will appeal to some people. If you are the manager of a large IS department with a many-years-and-dollars investment in FoxBASE and its descendants, you definitely should take a look at VFP 3. Of course, if you are getting along well with FoxPro 2.6, wait a while. There will have to be a maintenance upgrade to VFP 3 soon, if the performance is any clue.

If you have never used Xbase, FoxBASE or FoxPro, stay far away. There are many other tools that will fill both your feature and performance needs.

Microsoft Corp. of Redmond, Wash., is at (206) 882-8080 or (800) 426-9400; fax (800) 727-3351; info@microsoft.com; http://www.microsoft.com. □

Navigator Gold

From Page 34

Navigator Gold's online documentation currently exists just for the Windows version. Netscape plans to make the documentation more cross-platform; we hope it succeeds. The company will provide free support to Navigator Gold customers for up to 90 days after their purchase. Others may call for support; the charge will be $25 for the first 15 minutes and $2 per minute after that.

We found several minor bugs, and we encountered problems with the beta failing to publish pages to our FTP server. This problem was verified by Netscape, although it stated that the feature works in Version 3.0b6. (This new version was not yet available as MacWEEK went to press.)

Conclusions

Navigator Gold's HTML editing capability offers little innovation and lacks glamour. It doesn't accept image files dropped in from the Finder; has no tools for implementing the latest Netscape HTML extensions supported by the browser; and doesn't help with inserting frames, movies, applets or embedded files. To make Navigator Gold a good choice for basic Web-page publishing, Netscape must take care of a few bugs and apply some polish.

Netscape Communications Corp. of Mountain View, Calif., is at (415) 937-2555; fax (415) 528-4124; info@netscape.com; http://home.netscape.com. □

PostScript Solutions

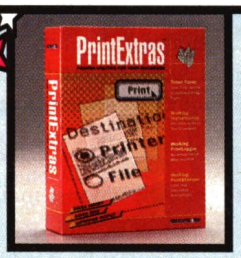
This Encapsulated PostScript (EPS) image was printed on an Apple Color StyleWriter **without** StyleScript

This Encapsulated PostScript (EPS) image was printed on an Apple Color StyleWriter **with** StyleScript

Adobe PostScript

Freedom of expression

Printer Enhancements



PrintExtras

This product offers four great printer utilities in one box! They are:

Toner Tuner: Adjusts the darkness when you print, saving toner and ink

Working PrintLogger: Records useful information about each print job

Working PrintStamper: Labels each document automatically with useful information

Working WaterMarker: Prints standard or custom graphics in the background of any printed document

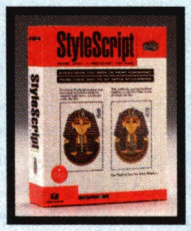
Hardware Connectivity

PowerNexus

PowerNexus is your LocalTalk to EtherTalk hardware bridge solution. The small, lightweight bridge will connect up to four of your LocalTalk networked computers, printers or other peripherals to your 10Base-T or Thin Coax EtherTalk network.

AutoSwitch

AutoSwitch is an inexpensive, automatic switchbox which includes all necessary cabling and adapters to easily share a printer between a PC and a Mac running a version of PowerPrint.



Print PostScript to a non-PostScript printer!

If you are sending PostScript graphics to an Apple StyleWriter, you need StyleScript to smooth the jaggies and free you from bad output. With StyleScript, you can turn an Apple StyleWriter into an affordable, sharp, high-quality PostScript printing machine. StyleScript is an amazing product that utilizes genuine Adobe PostScript Level 2 software, and works easily with your printer. StyleScript maximizes the output quality of your PostScript graphics to your printer's best resolution. You get the same result as you would using a PostScript printer – for less than $150!

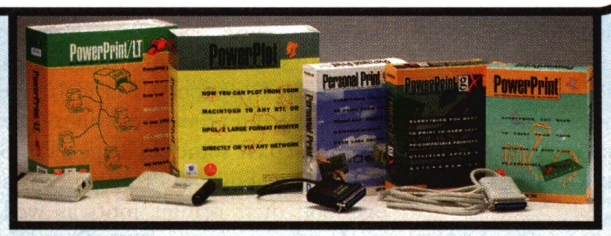
The answer, my friend, is StyleScript!

The above images were created in Illustrator, exported as EPS files into PageMaker and printed on an Apple Color StyleWriter 2500.

StyleScript®

Soon! StyleScript for DeskWriters SEPT '96

Mac to PC Printing Solutions



The PowerPrint family of products provides a complete solution that lets your Mac use virtually any PC-compatible printer.

PowerPrint: software and cable that allows your Mac to print to over 1000 PC-compatible printers

PowerPrint/LT: similar to PowerPrint, but 40% faster and designed for Macintosh networks

PowerPrint/GX: similar to PowerPrint, but designed for QuickDraw GX users

PowerPlot: similar to PowerPrint, but designed for printing to RTL and HPGL/2 plotters

Personal Print: similar to PowerPrint, but designed to print to the Magic Cap personal communicator

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Small offices get boost from Claris' OfficeMail

By Ross Scott Rubin

The program's easy setup makes it convenient for offices with small LANs.

The dilemma of how to get small offices communicating through the Internet has spawned a small industry of gateway software developers. Claris Corp. has jumped into the fray with the $399 OfficeMail. With its focus on small LANs, OfficeMail strikes at turf previously staked out by Casady & Greene Inc.'s Snap Mail but does a more graceful job.

OfficeMail, which includes five copies of Claris' Emailer client, officially supports up to 100 clients per server, although there is no technical limit to the number of clients.

Claris has made much of its claim that OfficeMail can be set up in six easy steps. If you're confining yourself to AppleTalk-based LAN mail, the server can be set up in as few as three steps using OfficeMail's clever system of assigning default passwords based on user name. After loading the server, Emailer is installed on the client Mac. Emailer 1.1 or later recognizes the OfficeMail server and also exchanges mail directly through America Online, CompuServe and AppleLink.

After its initial configuration, any AppleTalk addressee will automatically show up in Emailer's Address Book. Minimalist administration tools include the capability to back up server files to a separate volume and to monitor free disk space.

Configuration

We tested OfficeMail on a five-node network; our server was a Mac IIci with 24 Mbytes of RAM attached to a 14.4-Kbps modem. After setting up the server, we installed the Emailer client (see 08.21.95, Page 41), which automatically recognized other users on the OfficeMail server.

After testing OfficeMail on our LAN, we signed up for the ClarisLink service as our Internet provider. It uses UUCP (Unix to Unix Copy Program) to shuttle e-mail between the OfficeMail server and the Internet via Information Access Technologies Inc.'s HoloNet. ClarisLink costs $39 for 10 hours per month, which should be adequate for mail service — provided you don't exchange huge files through the Internet on a regular basis. It includes a free custom extension of its domain name. For example, if your business is named Smalloffice, your ClarisLink domain would be smalloffice.clrs.com. For an extra $25 plus $100 for the InterNIC fee, HoloNet will establish a top-level domain such as smalloffice.com for your e-mail addresses.

Although OfficeMail lacked a driver for our modem, its generic V.32bis driver worked fine, and it exchanged e-mail with several online services and Internet service providers without complications.

While OfficeMail lacks Snap Mail's real-time chatting (see 06.05.95, Page 31), the simple Snap Mail desk accessory client is no match for Emailer, which features powerful filtering controls and an industrial-strength address book as well as excellent Macintosh Drag and Drop support. Further, Emailer doesn't require an extension; it neatly handles its notification via a faceless background application. Snap Mail can function without a server, at the penalty of having to wait for sender and receiver to be on at the same time to deliver mail. While OfficeMail can't do that, a check-box choice lets any client act as a server.

AppleTalk is easy to set up through OfficeMail, but we were surprised to see so little server documentation from Claris, which usually has quality documentation. The Emailer manual comes with a supplement describing the changes in Version 1.1. TCP/IP issues are virtually ignored, along with any information about how to use other standard Post Office Protocol (POP) clients with OfficeMail, such as Netscape Navigator or Qualcomm Inc.'s Eudora.

Claris offers 90 days of free technical support starting from the first call. When we tried to reach Claris by phone, we were frustrated by busy signals, by having to give the same information multiple times and by a representative's poor understanding of OfficeMail's POP capabilities. Eventually, though, our questions were referred to a more knowledgeable support representative.

SCORE CARD

OfficeMail 1.0 ◆◆◆

Claris Corp. List price: $399*

Hits: Easy setup; convenient custom domain selection; cross-platform via TCP/IP.

Misses: Limited gateway support to other e-mail systems; difficult to set up Internet providers other than HoloNet; weak technical support.

**Includes five copies of Emailer. ClarisLink costs $39 for 10 hours per month and $5.95 per additional hour.*

Conclusions

Much to the chagrin of other Mac e-mail vendors, it has not taken long for Apple (through its subsidiary, Claris) to renege on its promise of noncompetition with its developers. Fortunately for users, it has done so in a convincing way. OfficeMail is a convenient solution for small offices seeking to exchange e-mail among its computers or through the Internet. We wish Claris had provided more variety in selecting its gateway providers, but HoloNet is an experienced provider of e-mail gateways to the Mac market. Claris, however, may be ill-equipped to deal with the intricacies of offering assistance to even small cross-platform sites.

Claris Corp. of Santa Clara, Calif., can be reached at (408) 727-8227 or (800) 544-8554; fax-back (800) 800-8954; info@claris.com; http://www.claris.com. □

REVIEWS IN BRIEF

Update to ALSoft's font manager better at finding problems

MasterJuggler Pro 2.0 ◆◆◆◆

In 25 words or less, yes, ALSoft Inc.'s MasterJuggler Pro 2.0 *is* better than Symantec Corp.'s Suitcase 3.0. In fact, at $89.95, it's the best font and resource manager for the Mac we've seen.

There's not much difference between the two when it comes to routine font-management tasks, such as making font sets and installing and removing them from service. Like Suitcase (see 03.11.96, Page 23), MasterJuggler is now Power Mac-native; it runs as a stand-alone application with options also available through the Apple menu. And like Suitcase, MasterJuggler adds some drag-and-drop functions of dubious value. You can load or remove fonts or font sets by dragging their icons over the program icon (to load them) or the Drop Close icon (to remove them). Both are more easily done from MasterJuggler's main window, although this window would be more functional if it could be resized instead of frozen at Mac Classic size.

Find the culprit

Where MasterJuggler excels over Suitcase is in identifying potential font and printing problems, such as the presence of corrupted or defective fonts, and in raising the yellow flag when a screen font has no corresponding printer font. MasterJuggler can warn you of these problems at several points: when you open a font; when you first gather it into a set; or on demand, when you want to manually check the integrity of your font library. Like Suitcase, it can identify and rectify font-numbering conflicts automatically, but it can also distinguish among multiple fonts with the same name (there are a lot of Bodonis out there, for example) to ensure that you're getting the one you want.

MasterJuggler sorts the deviant fonts it finds into two categories: the suspicious and the gravely damaged. For each troubled font, you get a report about the nature of the problem and what you can do about it. These results tend toward the alarmist, though: We were told that some fonts we've used for years without incident would crash our computer if we dared use them (although admittedly, font behavior varies on networks, in imagesetter RIPs, in embedded files and on stand-alone computers). In the case of fonts we knew were defective, MasterJuggler accurately identified the culprits.

The program does issue some specious warnings, though. When a PostScript font has been converted to a TrueType font (the case with some Mac System fonts and many early TrueType fonts), MasterJuggler reports the printer font as missing. Likewise, if you still have some old Type 3 PostScript fonts lying about, MasterJuggler is apt to overlook their printer fonts as well and send out a warning message. Since it's usually not apparent if a font has been converted or is a Type 3, it may take some head scratching to decipher MasterJuggler's first report on the health of your fonts.

Like Suitcase, MasterJuggler is tedious when building font sets because you have to know where all of your fonts are in advance, and you build your sets by selecting those fonts from their home folders. If you have many font folders or your fonts are spread across a network, this can take a lot of time. These programs should do the legwork for you, seeking out all available fonts and listing them in a single window. Suitcase users who plan to defect to MasterJuggler, though, will be pleased that MasterJuggler can convert their existing font sets — but only those created with Suitcase 2.0.

MasterJuggler has added functions offered by a number of specialty font programs. Its implementations vary in quality, but at least the features are there. It can print a font catalog (albeit in one-line showings only), show WYSIWYG screen previews of selected fonts and gather fonts together for shipping to a service bureau (although you have to select the fonts manually). Also, MasterJuggler has added an Applications List that goes a step beyond the Mac's Application Menu: You can launch applications (from a menu or by keyboard shortcuts) without returning to the Finder or launch several applications simultaneously.

Conclusions

MasterJuggler Pro 2.0 isn't perfect at identifying font problems, but it's better at it than Suitcase — and it comes with a range of built-in font utility functions to boot. ALSoft doesn't offer any sidegrades for Suitcase users, but with a $49 estimated street price, maybe it doesn't have to. (Symantec does not give out a list price for Suitcase, just a $69.95 suggested retail price.)

Upgrades from previous versions are $29.95.

ALSoft Inc. of Spring, Texas, can be reached at (713) 353-4090 or (800) 257-6381; fax (713) 353-9868; sales.info@alsoftinc.com. — *By Jim Felici*

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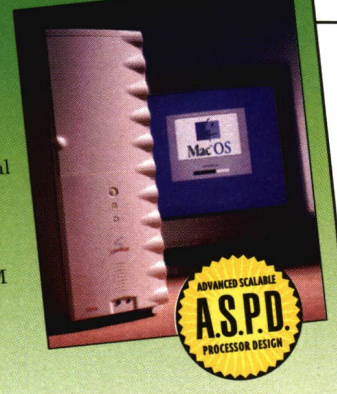

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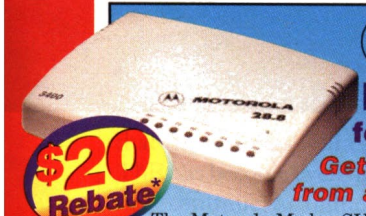

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TECHNICAL SUPPORT

Help! Companies create a way to support end users

By Erik Sherman

A photocopier company has run a television advertisement in which a nattily attired businessman, faced with a project deadline and a broken copier, begins screaming. This primal outcry ends only when a technician comes in late at night, removes a jammed piece of paper and starts the copier.

At the foundation of the ad's humor is the common business experience of having equipment malfunction at the most inopportune times. A hard drive error, application bug or printer breakdown is enough to halt almost any contemporary business activity in its tracks. Let a network or server shut down and the paralysis can extend to hundreds — even thousands — of employees.

From system installation to troubleshooting and maintenance, a company's technical support capacity is its insurance that the business will operate as planned. This has become even more key as companies continue to tighten their corporate belts, depending heavily on leveraging technology. Yet the same financial pressures on the organization as a whole also bear down on the support groups. Ironically, management sometimes reduces support for the systems that allowed it to streamline operations in the first place.

Many businesses, however, are trying to engineer their support efforts to ensure quality service while trimming costs. And many of these organizations take opposite routes to the same destination.

"The biggest pain in the neck is that everybody with a Mac has a different system. It makes it hard to support."

— Eva Sprintz, Ericsson Inc.

Desktop doctor

At New York's Mount Sinai School of Medicine, support is handled in-house, right down to inventory of parts. Lou Hernandez, Macintosh systems specialist, explained that by establishing an Apple-authorized repair center in-house, the school has been able to effectively control the cost of hardware repair.

Hernandez mentioned a pathologist whose Duo screen malfunctioned while the doctor was on vacation. A local dealer was "charging him twice as much," said Hernandez, who found that overcharges generally happen on part prices, not labor.

"There are a lot of reputable dealers, I'm sure, but the ones that stick out are the disreputable ones," he said. "There are outfits that will sell Mac parts; some of them are used. I've had a couple of outfits that offer me parts that way. It doesn't pay for me because I get them for so [little] anyway."

Hernandez maintains a direct relationship with Apple, which ensures good prices. Since Apple essentially views the school as a dealer, Hernandez has direct access to the best technical support personnel when he needs them. "The people who answer the phones for the average customer are not the same ones I talk to," Hernandez said. While he sees good technical support from Apple, he said, end users might not.

Even with the difficulties of stocking a wide variety of parts, the school is still reluctant to depend on third-party support organizations.

"There are a lot of fly-by-night outfits that make big promises and don't deliver," Hernandez said. "And even if you get a good company, you're paying for it. You're paying for that guy's labor, whatever markup on price, in many cases you're paying for travel, as opposed to your own in-house staff where you're stocking your own parts and you're not charging for labor because your salary is already paid."

Parts is parts

At the National Institutes of Health in Rockville, Md., hardware support is extremely decentralized, with 23 institutes, centers and divisions all able to handle such issues as they wish. The NIH, however, maintains a technical center that uses a local parts supplier.

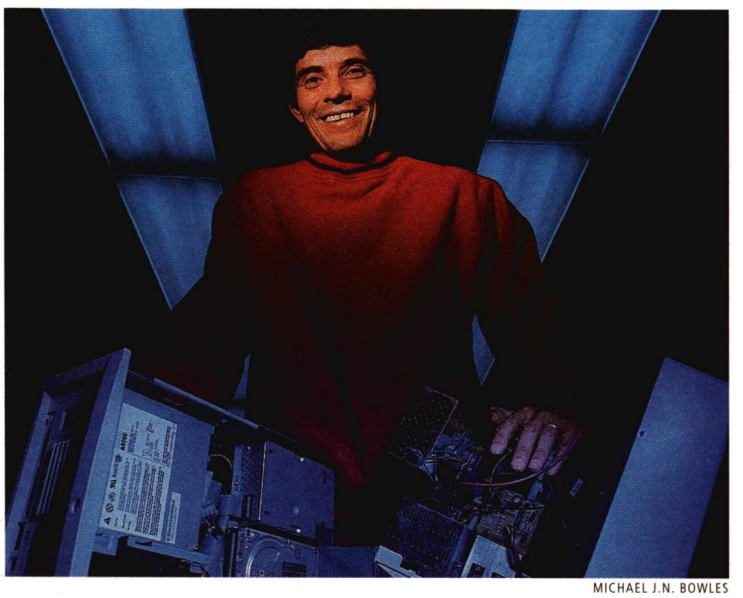
John Olguin is the equipment specialist for the support group. He said he is happy with the vendor of choice because of its ability to get parts quickly; he doesn't have the budget to stock every item.

The NIH had used several other suppliers but found them wanting. "They would promise they could get something quickly," Olguin said. "It would take them a week, two weeks to exchange the part. Researchers don't want to hear that." Now, Olguin said, he faxes a purchase order for a part in the morning and the part is usually at his door before 11 a.m. "I can't beat that, even if I [were] dealing directly with Apple," he said.

Outsourcing techies

Taking a different approach is Bose Corp. of Framingham, Mass. The manufacturer of

See Solutions, next page



MICHAEL J.N. BOWLES

John Olguin is the equipment specialist for the hardware support group at the National Institutes of Health in Rockville, Md. The NIH maintains a technical center that uses a local parts supplier.

GORDON STUDER

MACINTOUCH

RIC FORD

'Stepping back' for another look at earlier column

Some things move quickly in this business; others drag along slowly. I stumbled into the gap with my column two weeks ago (see 08.05.96, Page 85), and readers let me know about it.

Apple's *promises* for Mac OS 8, codenamed Copland, are running at full speed, and I overlooked some important documentation about its future file system.

According to developer documents available on the Internet, today's file system will be made more modular for Copland, and some of the new code is supposed to be much faster than today's equivalent. This documentation is part of a package titled "WWDC 1996 Inside Macintosh for Mac OS 8" available in Adobe Acrobat-format files at http://www.macos.apple.com/macos8/dev/wwdc_im.html.

The Hierarchical File System we know now, and the foundation for everything we do on the Mac, remains in Copland, but Copland recasts it as a "volume format plug-in" running under the stewardship of a redesigned File Manager.

According to the specifications, this future File Manager will easily switch between HFS and other formats, such as the DOS FAT (File-Allocation Table) scheme

See MacInTouch, next page

SOLUTIONS

From previous page

speakers and other audio equipment has not one, but two third-party support vendors: one for hardware and one for software. Technicians from the hardware-support vendor work at the Bose facilities.

Dave Lyons, supervisor of PC support at Bose, said: "Our employees can concentrate on [Bose] problems; our service vendors can work on more general problems."

Lyons and Maria Calabrese, Bose's supervisor of help-desk services, thought that while using a third-party vendor for support can be an effective tool for a corporation, some expertise must remain in-house. This is particularly true of such technologies as networks, which are heavily influenced by a specific implementation.

"That's where it's helpful to get both parties involved," Lyons said. "When it gets to our business specifically, that's where the outsourcing doesn't work all the time."

Their approach to support has developed naturally out of previous efforts. The hardware-support vendors originally sold hardware to them and added installation services because Bose technicians were too bogged down with repair work. Similarly, the software-support vendor sells applications to Bose and provides support as an added value. The company's help desk acts as a first level of support, passing problems to one of the vendors if necessary. Bose receives additional technical support as a result of buying hardware and software.

Bose is expanding its help desk to match it growth and is also seeking ways to handle problems more efficiently. "One of the major things that every company is looking for is knowledge-based systems. It makes transfer of knowledge easier," Calabrese said. By tracking problems and solutions through in-house systems, Bose will have more resources to answer questions earlier in the process.

Other companies have discovered that the quest to reduce expenditures can rack up additional hidden costs.

Penny-wise, pound-foolish

The help desk at Ericsson Fiber Access, formerly Raynet Corp., of Menlo Park, Calif., must support a wealth of topics, including applications, network calls, LAN communications, equipment installations and moves, e-mail, fax machines, and phones. Eva Sprintz, desktop support manager, must balance demands for service against cost considerations and the potentially unstable nature of an acquisition.

"I see that it all starts with the business," Sprintz said. "The business needs to create consistency in what they want to do, because that really affects the support level. When they create some consistency in the organizations — when they stick to them, that is — my problems start to calm down."

Sprintz makes use of outsourcing when her staff does not have either the expertise or the time for logistics. She said she felt that many in-house repairs were too much trouble and could be resolved by overnight mail. The group, recently acquired by Ericsson Inc. of Richardson, Texas, supports 500 employees but does not have the resources to keep its own repair staff.

"I suppose I could hire more people, but I'd want them fully trained. Otherwise, it takes me two months to train them," Sprintz said. The paperwork and housekeeping that's necessary to bill costs back to groups, to send and receive parts, and to test repairs would be just as burdensome as staff needs, she said.

"I know that for the amount of time we administrate it, we could never exactly get our checkbook to balance," Sprintz said. With "a hundred other headaches and problems," she said, they don't need the complications. Outsourcing provides ready documentation for end users and accounting.

It doesn't outsource only technical work, but also toner and paper supplies. A third party ran the copy center and serviced all copiers, including delivering toner. They now provide toner for fax machines and laser printers.

"We don't want to become delivery people," Sprintz said.

Pass the software buck

One aspect of support that few seem eager to perform in-house is third-party application support. Bose has a third-party support firm, and Mount Sinai School of Medicine refers users to the software publishers themselves. At the NIH, all support from off-the-shelf software comes from a third party.

"Our customers are likely to get better help because the services have direct lines into [the software vendors]," said Jenny Riewerts, supervisor of the NIH's technical assistance and support center. This in-house help desk, separate from the hardware services group, supports only applications written by the NIH.

Of course, every company doesn't outsource software support. Sprintz of Ericsson Fiber Access said her group fields more than half of the application support calls. It takes calls on a broad collection of applications, including Microsoft Excel and PowerPoint, Claris Corp.'s Claris Draw, and Mainstay's MacFlow. Sprintz said she finds, however, that Macintosh users are harder to support than their Intel-standard counterparts.

"The biggest pain in the neck is that everybody with a Macintosh has a different system," Sprintz said. "Everyone installs whatever they want. It makes it hard to support. But we can't say, 'No, we won't support you.' " □

Respect your local help desk

When it comes to respect, many help desks have more in common with Rodney Dangerfield than Aretha Franklin. Experts say technical support is vital to a corporation dependent on computer technology, but businesses often miss this point.

"I would say the people who work at corporate help desks are regarded one step above the people who water the plants," said Jeffrey Tarter, publisher of Soft•letter, an influential software-industry newsletter in Watertown, Mass. "Basically, they perform a function that most corporations don't take very seriously. They're not considered mission-critical because there are a lot of ways for people to get support within a corporation. They can get it from a vendor, they can get it from a guy down the hall, they can get it from books."

Certainly there are companies such as Bose Corp. that provide resources for their support groups, but there are many that do not provide what is needed for efficient support.

John Olguin, equipment specialist at the National Institutes of Health, said: "The in-house technicians here could provide better service if we had more technicians or were able to replace those that have left. It's almost impossible without being able to hire and replace some of the technicians we've lost."

According to Olguin, this lack of resources can lead to long lead times for technical support that directly affects productivity. — By Erik Sherman

MACINTOUCH

From previous page

used in classic DOS-compatible systems. With native PowerPC code and the ability to process multiple tasks concurrently, the Copland File Manager promises to break old bottlenecks.

Deliverables, please

But let's switch back to the present for a moment, back to the slow track of real software development. As I write this, not even the preliminary Copland Developer Release 1 has been delivered. A few readers who tried pre-DR1 prototypes describe Copland's current condition as woefully unstable, making any file-system performance testing impractical.

Apple obviously has a big job ahead, and there are still many questions. How much of a bottleneck will HFS be in its plug-in form? Can Apple deliver a more advanced "volume format" within the new File Manager architecture? How soon?

The performance of the future file system may be fuzzy right now, but Apple deserves credit for considering the issue and for looking at a larger picture.

As noted in the earlier column, there are plans for advanced searching features and other significant improvements in Copland. The issue is whether these are bells and whistles on an old platform or fundamental architectural changes that will give the Mac OS a competitive edge.

Copland recasts HFS as a "volume format plug-in" running under File Manager.

Feedback loop

We won't really understand Copland's competition until Copland is delivered and we see what Microsoft Corp. and others produce in the interim, but readers had some things to say about today's competitors to the Mac OS.

Several cited shortcomings in Windows 95 and the small installed base of Windows NT systems.

While there are valid arguments for choosing a Mac today, these arguments do nothing for the Mac's future. One person wondered if Apple would need a Microsoft-like, two-pronged strategy, producing a professional OS and a consumer OS.

Another pointed to a significant advantage for NT: full multiprocessing support. Apple's moves in this direction look late and limited by comparison. The general impression of NT's file system and kernel seems to be respectful and positive.

A few readers with Unix experience wrote to say that Unix file systems and kernels are not terribly robust. There are multiple Unix file systems and kernels from which to choose, however, and it is only appropriate to cite current systems for comparison.

A couple of people cited NeXT and Be systems as Mac-inspired alternatives for my list.

A quick review of current Mac OS news shows a lot of change.

Keeping score

Unity ("System 7.5 Version 7.5.3") has already been updated by QuickTime 2.5 and LaserWriter 8.4. Some LaserWriter 8.4 problems should be fixed in LaserWriter 8.4.1, due shortly. Open Transport 1.1.1 and a Point-to-Point Protocol client are also imminent.

A new collection of fixes, code-named Son of Buster, will clean up more problems (see 07.29.96, Page 4), and Apple Telecom 3.0 (see 07.22.96, Page 68) is waiting in the wings with better GeoPort support.

Answering one frequent question, an Apple Tech Info Library article, "Apple Remote Access and System 7.5.3," said Apple Remote Access 2.1 can be installed on top of System 7.5.3. Previous Apple Remote Access versions had to be installed before the various System 7.5.3 updates and revisions. □

Comments on MacInTouch are welcome at (508) 897-2621. Please address e-mail to ricford@macintouch.com on the Internet or 72511,44 on CompuServe. The MacInTouch home page is at http://www.macintouch.com/.

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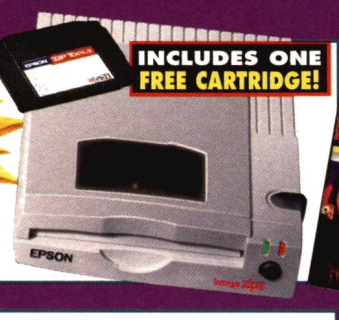

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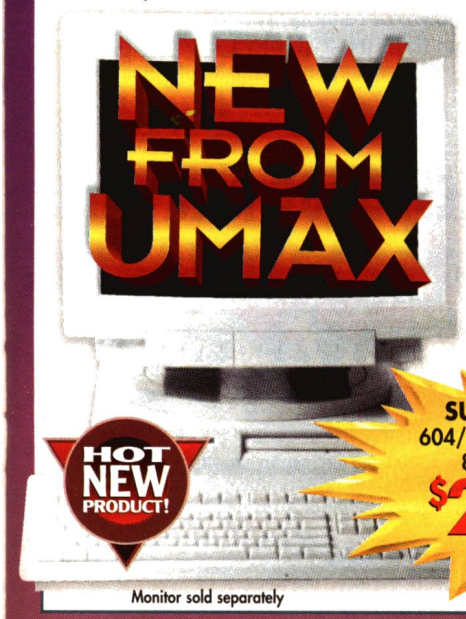
UMAX Computer Corporation — SUPERMAC J700L

New, Affordable 150MHz Mac O/S Compatible!



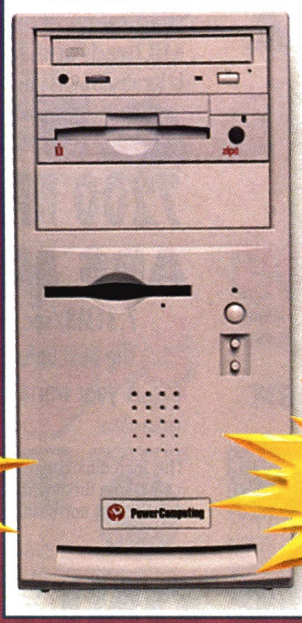
Get true workstation performance on a Mac OS platform. The new SuperMac J700D boasts a **150MHz** PowerPC 604e Processor, 16MB of RAM, 6.7X CD-ROM Drive and up to 4 PCI slots. Plus you can easily upgrade the processor to a faster speed with a SUPERmac Primary Processor Card.

SUPERmac J700D
604/**150MHz**/16MB RAM
8X CD-ROM Drive
$2995 (Or lease for $120 per month)
#82882

Monitor sold separately

POWER COMPUTING

NEW PowerTower Pro 225MHz!



The Fastest Mac® O/S Compatible Ever!

Blast through your projects with it's 16MBs of RAM, 2GB HD and it's blazing-fast **225MHz** PowerPC 604e Processor. You get a total of 9 Drive Bays, 6 PCI slots, dual processor support and CPU upgradeability. It even includes built-in IMS Twin Turbo 128-bit Graphics Accelerator, built-in Networking, an 8X speed CD drive & built-in 16-bit stereo & 1MB level 2 cache.

HOT NEW PRODUCT!

PowerTower Pro
604/**225MHz**/16/2GB/8XCD
& Graphics Accelerator
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UMAX — Vista T630 SOHO

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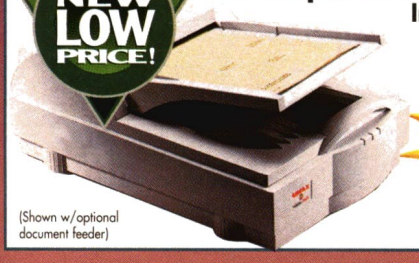

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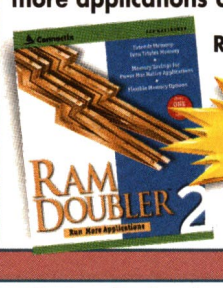

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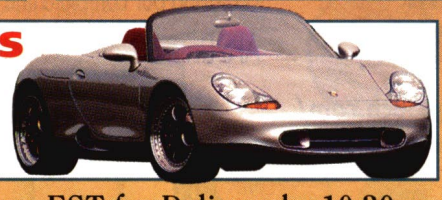

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APS TECHNOLOGIES:

3GB FOR THE PRICE OF A 2GB DRIVE!

GREAT PRICE **$499.95** *Internal configuration*

Quantum

APS Q 3200

- 3GB for the price of 2GB
- 4500 rpm mechanism
- High performance UltraSCSI interface

It's like getting an additional gigabyte for FREE. The new APS Q 3200 is priced lower than many 2GB SCSI drives, yet it delivers 3000MB of reliable storage. The drive uses MR heads and an advanced PRML read channel to fit its 3GB into a 3.5" low profile UltraSCSI drive.

2GB BARGAIN!

APS I 2160

GREAT PRICE **$399.95** *Internal configuration*

- UltraSCSI interface
- Over 2060MB formatted capacity
- 5400 rpm mechanism
- 5-year warranty

IBM

What a deal – 2063MB for under $500! Great performance, MR heads and IBM's sector formatting technology make this drive a great buy for needy workstations running applications from database and spreadsheets to desktop publishing and imaging.

7200 RPM PERFORMANCE, 5400 RPM PRICE!

APS MS 2000

$399.95 *Internal configuration*

- 7.31MB/sec. sust. write, 4.54MB/sec. sust. read
- The best value for performance and capacity
- 5-year warranty

MacUser ZD LABS

MICROPOLIS

This incredible drive has the performance you would expect from a 7200 rpm mechanism but with a 5400 rpm drive price – and reliability! The APS MS 2000 formats to 2047MB, delivers sustained reads at up to 4.54MB/sec. and sustained writes at up to 7.31MB/sec, has an average access time of 20 ms and average seek of 9.6 ms.

1.2GB OF STORAGE FOR ONLY

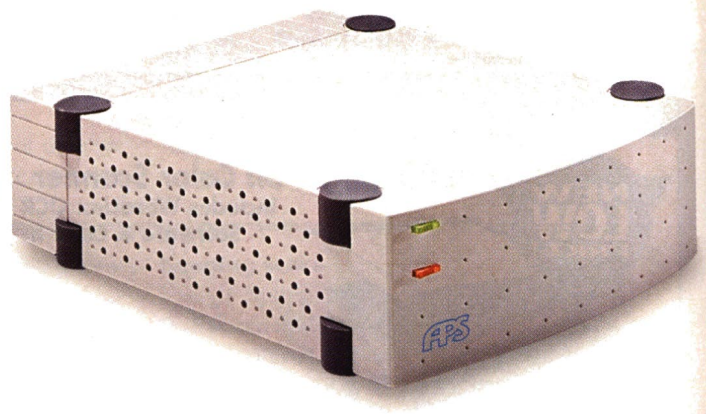
APS Q 2100

$399.95 *Internal configuration*

Quantum

New UltraSCSI!

- Reliable 4500 rpm mechanism
- MR heads, PRML and UltraSCSI Technology
- Exceptional value among 2GB drives
- 3-year warranty



Give your Mac the extra storage space it needs by installing the new APS Q 2100. At only 20¢ per MB internal, the APS Q 2100 is the value leader in 2GB SCSI hard disk drives. Its performance is a great match with any application, and it is backed by a 3-year warranty.

APS SCSI DRIVES

Model	Capacity/Features	Internal	SR2000
APS Q 840 Quantum 840 Trailblazer	**811MB** 4500 rpm	$199.95	$259.95
APS Q 1280 Quantum Fireball TM	**1222MB** 4500 rpm	249.95	349.95
APS Q 2100 Quantum Fireball TM	**2100MB** 4500 rpm	399.95	499.95
APS Q 3200 Quantum Fireball TM	**3200MB** 4500 rpm	499.95	599.95

These products are performance-matched for optimal performance in the PowerPC environment.

APS IDE DRIVES FOR MACINTOSH

Model	Capacity/Features	Internal
APS Q 1280A Quantum Fireball II 1280	**1222MB** 5400 rpm (Fast ATA-2)	$229.95

APS POWERBOOK DRIVES

Model	Capacity/Features	Internal
APS Q 1.08 Quantum Europa	**1037MB** 3800 rpm, IDE – Fast ATA-2	$399.95
APS I 1.2 IBM Travelstar DPRS-21215	**1200MB** 4900 rpm, SCSI-2	699.95

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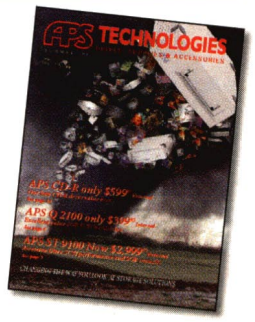

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- Drive-for-Drive Repair or Replacement Warranty. APS will, at its discretion, replace or repair products found to be defective according to the terms of the product's warranty.
- Refused orders subject to 20% restocking fee.
- Listed capacities are formatted.
- Actual data compression and tape capacity vary greatly depending on the type of data recorded, other system parameters and environment.
- Internal hard drives include brackets, cables, cords and LEDs required for operation with the specified Macintosh where applicable. External SCSI-2 drives come with a premium SCSI cable, power cord and user guide.
- You may need to install system software appropriate to your machine before using our hard drives.
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Now introducing IC²E, the industry's hottest (and coolest) enclosure cooling technology.

A radical new concept in drive mechanism climate control, APS exclusive IC²E system uses digital technology to sense heat build-up around the drive mechanism. Applying that information, IC²E controls a high-performance, super-efficient ball bearing fan subsystem to maintain mechanism temperature comfortably within the manufacturer's specified operating range. Should the mechanism exceed the specified operating temperature range, the intelligent IC²E circuitry provides a clear indication that a thermal problem exists. This approach drastically reduces cooling noise at low ambient temperatures, and improves both fan and drive mechanism life.

GREAT PRICE ON 2GB AV DRIVE

APS MS 2000AV

$449.95 *Internal configuration*

- ✔ Includes Micropolis' AV-Gold firmware
- ✔ Excellent mix of speed and reliability
- ✔ Outstanding value at its new, lower price

Combining data transfer rates as high as 4.71MB per second, Micropolis' acclaimed AV-Gold firmware, and excellent pricing the APS MS 2000AV is an excellent choice for demanding AV storage chores. This reliable 5400 rpm drive formats to just under 2GB and is backed by a five-year warranty.

4GB HIGH-PERFORMANCE AV

APS MS 4.0AV

JUST $999.95 *Internal configuration*

- ✔ 7200 rpm mechanism delivers high transfer rates
- ✔ Advanced cache management system
- ✔ Micropolis' acclaimed AV-GOLD firmware
- ✔ 5-year warranty

With sustained reads of over 4MB per second and sustained writes of over 4.73MB per second, the APS MS 4.0AV is the ideal entry to mid-level drive for AV use. Its thermal calibration helps prevent data stream interruption.

9GB OF BLINDING SPEED!

APS MS 9000

- ✔ UltraSCSI performance
- ✔ Huge 9GB capacity 3.5" form factor
- ✔ 7200 rpm mechanism
- ✔ 5-year warranty

JUST $1899.95 *Internal configuration*

Step up to the new capacity and performance leader – the APS MS 9000. This 9GB, 7200 rpm drive is based on the Micropolis 3391 mechanism and is capable of transfer rates of up to 20MB/sec. on an UltraSCSI bus, and exceptional performance on a SCSI-2 bus. It is available externally in our award-winning SR 2000 enclosure.

WHOA, WHAT A DEAL!

APS Q 4.0

$899.95 *Internal configuration*

- ✔ Advanced cache performance
- ✔ The perfect drive for servers
- ✔ 7200 rpm mechanism delivers high transfer rates
- ✔ 5-year warranty

Using and embedded servo as well as a high-performance 7200 rpm Quantum Atlas mechanism, the APS Q 4.0 is equally at home with demanding AV and non-AV applications. The APS Q 4.0 also uses a huge 2MB cache to achieve sustained reads and writes of up to 4.45MB/sec. and 4.56MB/sec, respectively.

BULK STORAGE, BULK PRICE - 9GB JUST

APS MS 9.0

$1899.95 *Internal configuration*

- ✔ Best cost per MB in its class
- ✔ 8669MB formatted capacity
- ✔ Best performance & value in 9GB drives
- ✔ 5-year warranty

The high-capacity APS MS 9.0. formats to just under 9GB and has the lowest cost per MB in its class. It supports sustained reads of 3.55MB per second and writes of 5.82MB per second with an access time of 16 ms.

APS HIGH-PERFORMANCE SCSI DRIVES

Model	Capacity/Features	Awards	Internal	SR2000
APS I 2160 IBM Ultrastar ES	2063MB 5400 rpm		$399.95	$499.95
APS MS 2000 Micropolis 4421	2047MB 5400 rpm	LABS	399.95	499.95
APS MS 2000AV Micropolis 4421AV	2047MB 5400 rpm		449.95	549.95
APS Q 4.0 Quantum Atlas XP34300	4101MB 7200 rpm	LABS	899.95	999.95
APS MS 4.0AV Micropolis 3243AV	4064MB 7200 rpm		999.95	1099.95

APS HIGH-PERFORMANCE SCSI DRIVES

Model	Capacity/Features	Awards	Internal	SR2000
APS MS 9000 Micropolis 3391	8669MB 7200 rpm		$1899.95	$1999.95
APS MS 9.0 Micropolis 1991	8669MB 5400 rpm		1899.95	2099.95*
APS MS 9000W Micropolis 3391W	8669MB 7200 rpm		1999.95	2099.95
APS MS9.0AV Micropolis 1991AV	8669MB 5400 rpm	LABS	1999.95	2199.95*

APS FAST/WIDE SCSI DRIVES

Model	Capacity/Features	Internal	SR2000
APS MS 2.0W Micropolis 4221W	1955MB 7200 rpm	$649.95	$749.95
APS MS 2.0W AV Micropolis 4221WAV	1955MB 7200 rpm	749.95	849.95
APS MS 4.0W Micropolis 3243W	4064MB 7200 rpm	999.95	1099.95
APS MS 4.0W AV Micropolis 3243WAV	4064MB 7200 rpm	1099.95	1199.95

*Available only in full-height case

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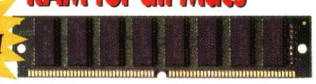

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GREAT PRICE **$499.95** *External configuration SR 1000 or SR 2000 case*

Price includes one 1GB cartridge!

APS Jaz

- ✔ Hard drive performance
- ✔ Huge 1GB capacity on removable media
- ✔ Choice of enclosure

SR 2000 enclosure

The immense 1GB capacity of Jaz's removable media has changed the removable storage market forever! The APS Jaz's performance rivals most fixed-platter hard disk drives; and who would you rather buy it from than APS?

540MB REMOVABLE SyQuest COMPATIBLE

APS M540

GREAT PRICE **$299.95** *External configuration*

- ✔ 540MB capacity on removable media and full SyQuest 270 media compatibility
- ✔ Terrific removable media performance – sustained reads up to 3.04MB/sec. and a 9.9ms average seek

Attention graphics professionals and desktop publishers: you now have a high-capacity, high-performance removable disk alternative. The new APS M540 provides 540MB of storage on reliable, single-platter media and is capable of transfer rates of up to 2.68MB/sec. The APS M540 is also read/write compatible with your existing SyQuest 270 cartridges.

LOWEST PRICE EVER FOR DDS-2!

APS ProDAT®

- ✔ Up to 4GB of uncompressed data on a 120m tape
- ✔ Reads and writes 60, 90 and 120m DAT tapes

$699.95 *External configuration*

A $139 value – FREE

When a large uncompressed capacity and high speed is needed to handle backup chores for applications like digital video or multimedia, the APS ProDAT is the drive for you. Its 4GB capacity on standard 120m DDS-2 DAT tapes and backup speeds of up to 22MB per minute make the APS ProDAT the perfect drive for demanding backup needs.

HIGH PERFORMANCE 8X CD-ROM!

APS CD-8 Pro

- ✔ Fast 1.2MB/sec. transfer rates
- ✔ 115 ms average access
- ✔ Smooth video output

$299.95 *External configuration*

8X

Take advantage of the high performance 8X CD-ROM speed of the new APS CD-8 Pro to supercharge any CD-ROM application. The APS CD-8 Pro's 1200KB per second maximum transfer rates in 8X mode provide smoother full-screen video output than earlier generations of CD-ROM drives, and makes it terrific for use with large, complex files. Additionally, the fast average access time of the APS CD-8 Pro makes it a great match with interactive multimedia.

APS QIC & DAT TAPE BACKUP SYSTEMS

Model	Capacity/Features	Awards	Internal	SR2000
APS HyperQIC™ Travan 4 Mechanism	8GB	MacWeek ★★★★, MacUser ZD LABS ★★★½	N/A	$499.95
APS ProDAT® DDS-2 Mechanism	4GB		$649.95	699.95
APS HyperDAT® DDS-2 Compression Mechanism	8GB	Power Matched for PowerPC	849.95	899.95
APS HyperDAT® Pro DDS-2 High-Speed Mechanism	8GB	Power Matched for PowerPC	949.95	999.95

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APS DLT TAPE BACKUP SYSTEMS

Model	Capacity/Features	Awards	Full-Height
APS DLT30 Digital Linear Tape Mechanism	30GB	Power Matched for PowerPC; MacUser Editors' Choice Award 1995 Finalist	$2999.95
APS DLT40 Digital Linear Tape Mechanism	40GB	Power Matched for PowerPC	4999.95
APS DLT4500 Digital Linear Tape Loader	200GB	Power Matched for PowerPC	8899.95

All APS tape drives include Retrospect® by Dantz®

- 30-day money-back guarantee on all APS brand products. Your risk is the cost of shipping.
- Drive-for-Drive Repair or Replacement Warranty. APS will, at its discretion, replace or repair products found to be defective according to the terms of the product's warranty.
- Refused orders subject to 20% restocking fee.
- Listed capacities are formatted.
- Actual data compression and tape capacity vary greatly depending on the type of data recorded, other system parameters and environment.
- Internal hard drives include brackets, cables, cords and LEDs required for operation with the specified Macintosh where applicable. External SCSI-2 drives come with a premium SCSI cable, power cord and user guide.
- You may need to install system software appropriate to your machine before using our hard drives.
- Prices and specifications are subject to change without notice. Not responsible for typographical errors.
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APS REMOVABLES

Model	Capacity/Feature	Awards	SR1000	SR2000
APS SQ 5200 Compatible with 200, 88 and 44MB cartridges	194MB	MacUser ZD LABS ★★★★½	N/A	$399.95
APS M540 Compatible with SyQuest 270 & EZ 135 cartridges	500MB	Power Matched for PowerPC	N/A	299.95
APS Jaz 1GB Jaz cartridges $99.95 ea.	1GB		$499.95	499.95

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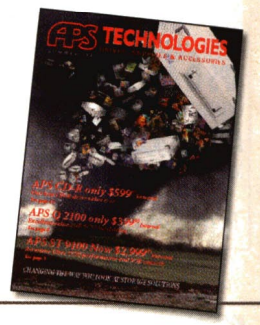

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8X

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SR 2000 $299.95

APS CD-8

- ✔ High performance 8X CD-ROM drive
- ✔ Great for home and office CD-ROM use

Smooth full-screen video output, the 8X performance of the new APS CD-8 supercharges any CD-ROM application! Its speed enhances multimedia AND business CDs. At this incredibly low price, you can hardly afford to live with that old 2X or 4X CD-ROM drive.

ULTIMATE CD-R MASTERING SYSTEM

APS CD-R Mastering System 2.0

- ✔ High-performance 4X CD-R drive & high-performance 2GB AV drive
- ✔ Free copy of TOAST CD-ROM Pro – a $500 value
- ✔ Now comes with the new APS MS 2000AV hard drive!

$1999.95 *External configuration*

The ultimate goal when burning CD-R media is a successful burn on the first try, minimizing wasted media, and our new high-performance CD-R Mastering System helps you meet that goal. Combined in a single full-height enclosure, you'll find a high-performance 4X4 CD-R drive and 2GB of high-performance AV storage.

LOWEST PRICE EVER ON CD-R!

APS CD-R

A $399 value – FREE DISCRIBE

- ✔ Uses CD media with 100-year shelf life
- ✔ Random access gives you fast retrieval
- ✔ Supports variable and fixed packet writing

$599.95 *External configuration*

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- Turn your Power Mac or AV Quadra into a hands-free telephone workstation
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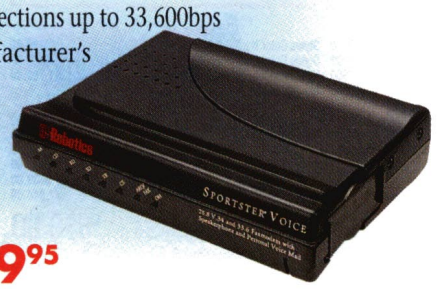

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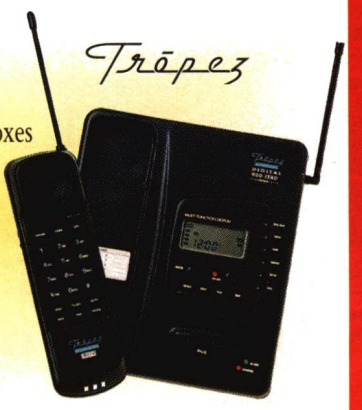

106031 $289.95

APS MEDIA SPECIALS

	IMATION	PRICE
101574	3M 4mm DAT CLEANER	$9.95
106159	3M 8mm DAT CLEANER	21.95
105294	3M MINI CARTRIDGE DRIVE CLEANING KIT	17.95
105309	FELLOWES CD-ROM DRIVE LENS CLEANER	17.95
106150	3M TRAVAN TR-4	36.95
105202	3M PD 650 CARTRIDGE	47.95
1021-308	SONY 3080XLF	29.95

Retrospect CD-R drop in driver $49.95†

Retrospect with CD-R driver 99.95†

†*With purchase of a drive*

APS CD DRIVES

Model	Features	External
APS CD-8 8X CD-ROM	8X-SPEED	$229.95
APS CD-8 Pro Data transfer rates up to 1200KB per second!	8X-SPEED	299.95
APS CD-R FREE Discribe CD recording software ($399 value)	Recordable CD-ROM	599.95*
APS CD-R Plus FREE TOAST CD-ROM Pro recording software ($500 value)	Recordable CD-ROM	899.95*
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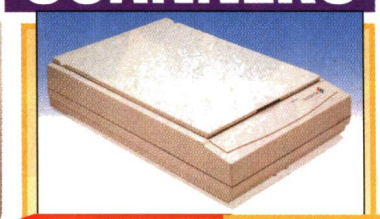

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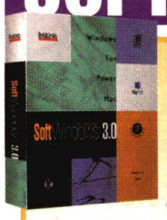

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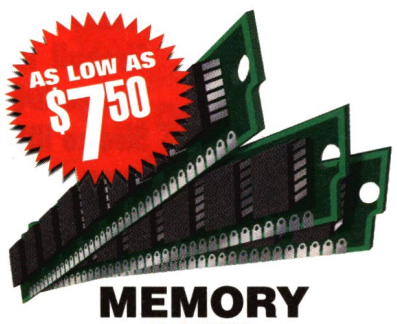

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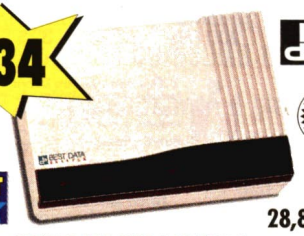

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•PRODIRECT CONFIGURED IBM WIDE MECHANISMS WITH 1,000,000 MTBF RELIABILITY
•ATTO ACCELERATORS •REMUS RAID SOFTWARE
ONLY $5895 Model PDIUS16ADCR

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24MB	$522		$522
32MB	$599		$599
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135MB	SQEZ135	195
200 MB	SQ5200	325

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88 MB	42
135 MB	19
200 MB	66
270 MB	54
135 MB	17
230 MB	28

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Includes 1 Free Cartridge
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- Ultra SCSI 3
- PRML
- Low profile
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5 YEAR WARRANTY

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Hitachi 2.5" IDE***	1.0GIG		14MS	5400	$ 425	
Seagate ST51080N ***	1.2GIG	LP	12.5MS	5400		$ 360
Seagate Hawk 2XL***	1.2GIG	LP	9MS	5400		$ 469
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Seagate 32155N	2.1GIG	Ultra SCSI	9MS	5400		$ 620
Seagate Barracuda 2	2.5GIG	LP	8MS	7200		$ 795
Seagate Barracuda 2W	2.5GIG	LP	8MS	7200		$ 865
Fujitsu M2934S	4.2GIG	MR	8MS	7200	$ 975	$ 1045
Fujitsu M2934Wide	4.2GIG	MR	8MS	7200	$ 975	$ 1045
Seagate Barracuda 4	4.1GIG		8MS	7200		$ 1205
Seagate Barracuda 4W	4.1GIG		8MS	7200		$ 1325
Seagate Hawk4	4.3GIG		9MS	5400		$ 999
Conner CFP4207S	4.2GIG		9MS	7200	$ 949	$ 1019
Conner CFP4207wide	4.2GIG		9MS	7200	$ 1099	$ 1199
Quantum Atlas	4.3GIG		8.6MS	7200	$ 999	$ 1069
Seagate Elite 9	9.0GIG		11MS	5400		$ 2195
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2MB Buffer

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MW ★★★★

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Ricoh 2x 4 Recorder 512K buffer	External	$ 825
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Nakimichi 8 x 4-Disc CD-ROM Changer	External	$ 599
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-8GIG	Sony 7000 DDS-2* MW ★★★★	4MM	$ 929	$ 999
-14GIG	Exabyte 8505XL	8MM	$ 2065	$ 2125
-14GIG	Exabyte 8700	8MM		$ 1575
-40GIG	Exabyte Mammoth	8MM		$ 5499
-30GIG	DLT2000XT	1/2"		$ 2999
-40GIG	DLT4000 MW ★★★★	1/2"		$ 4599
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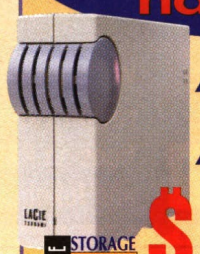

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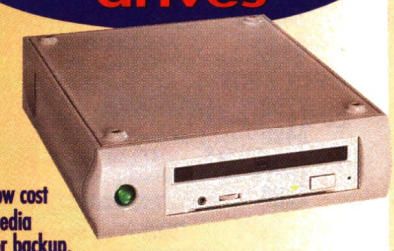

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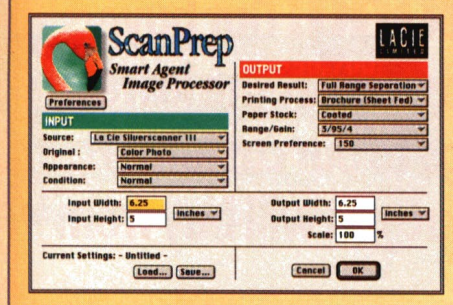

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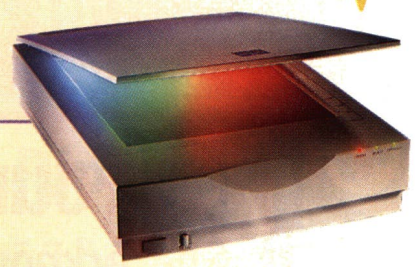

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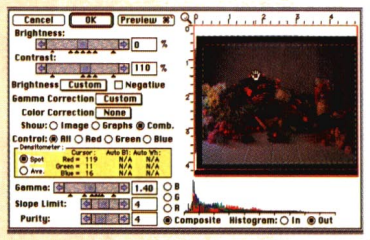

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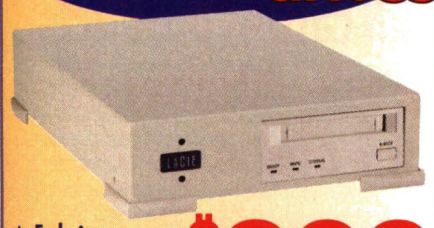

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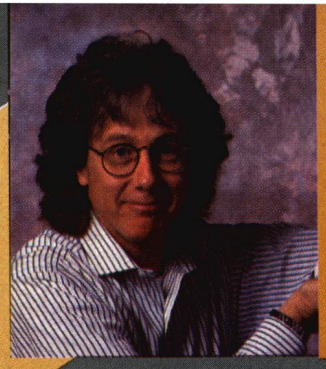

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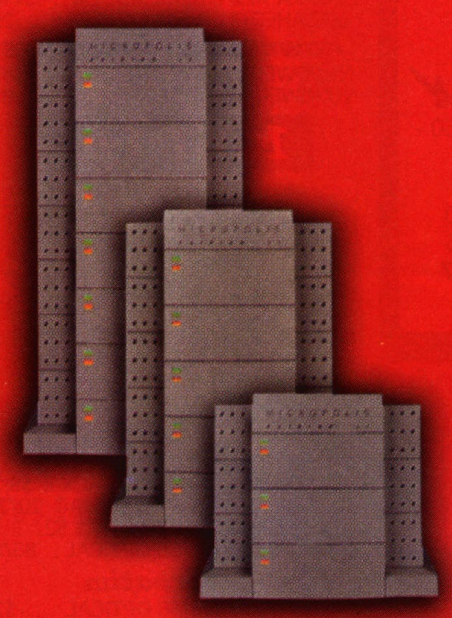

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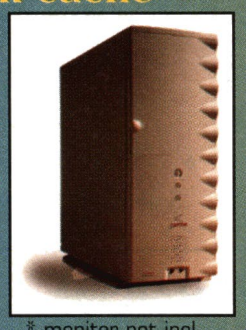

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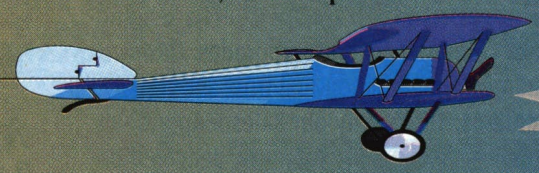

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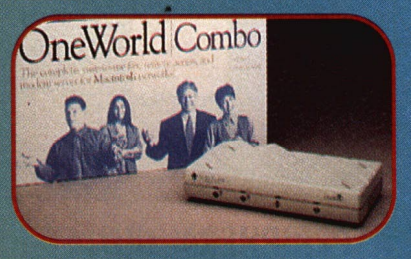

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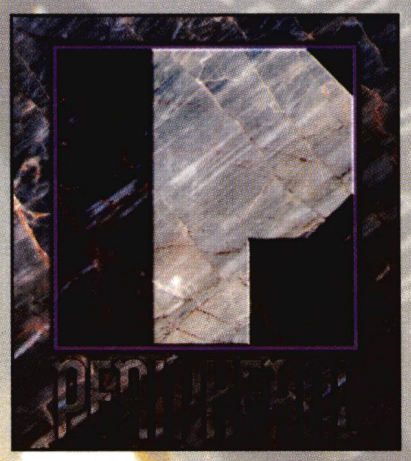

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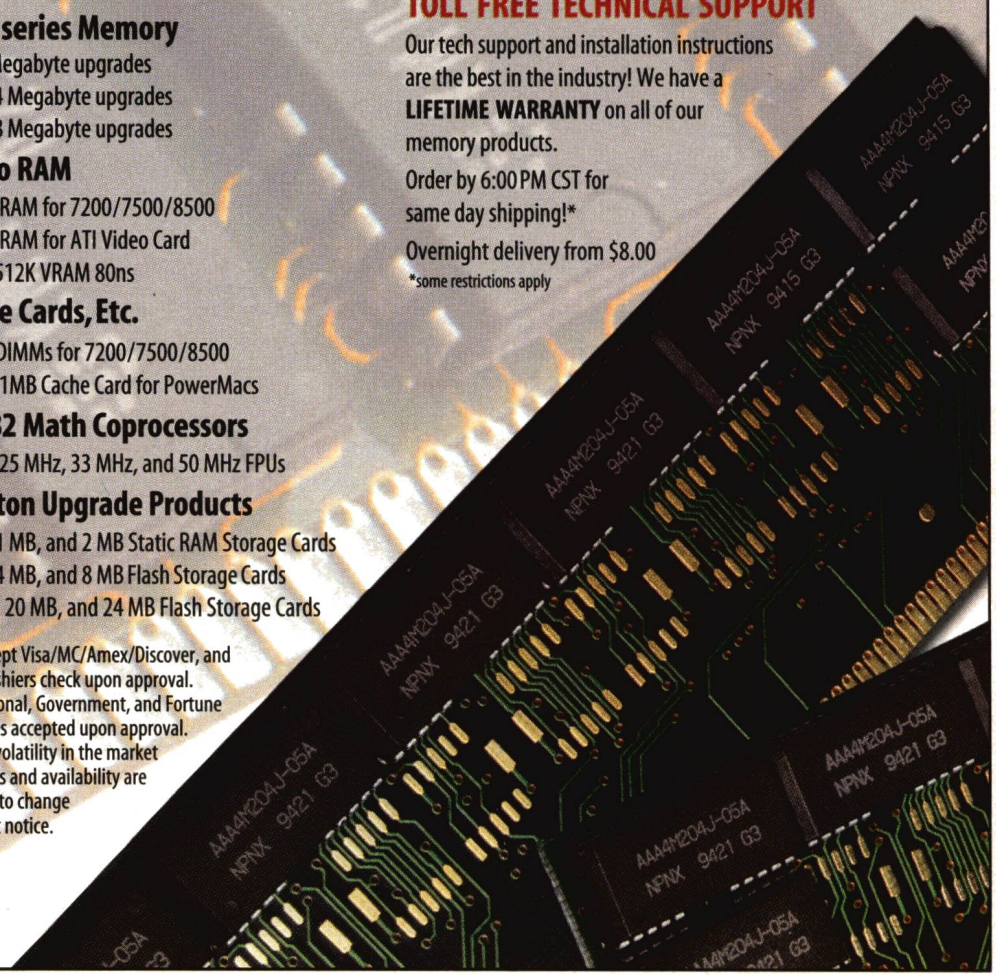

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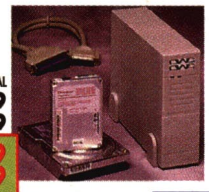

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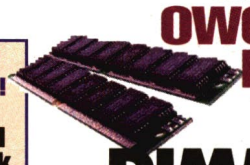

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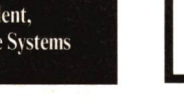

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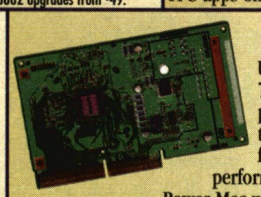

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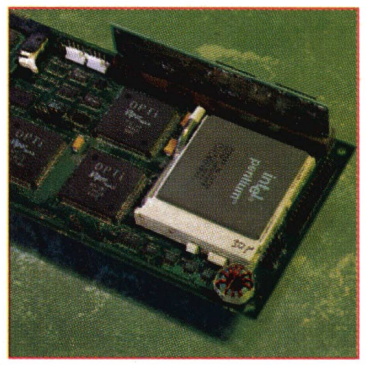

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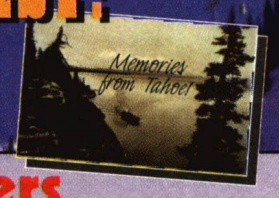

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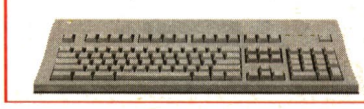

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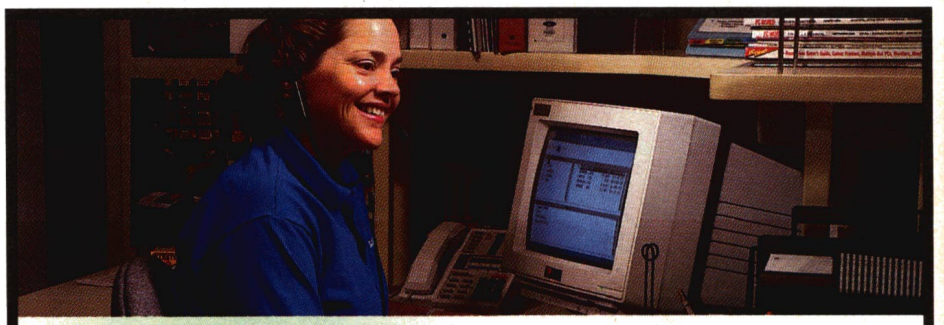

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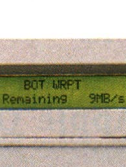

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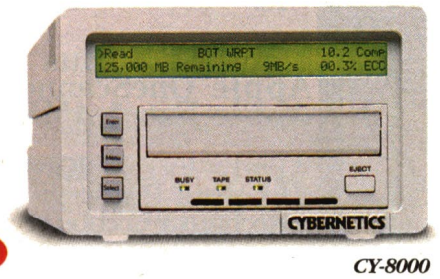

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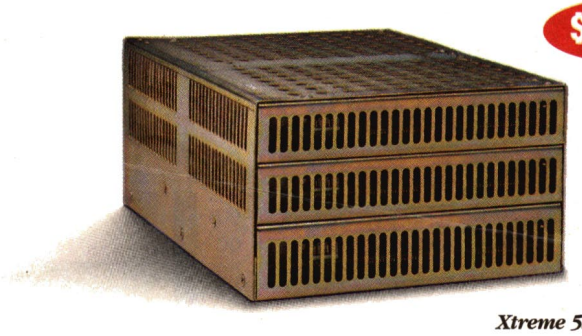

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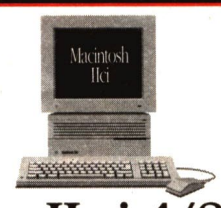

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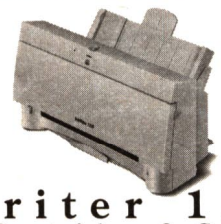

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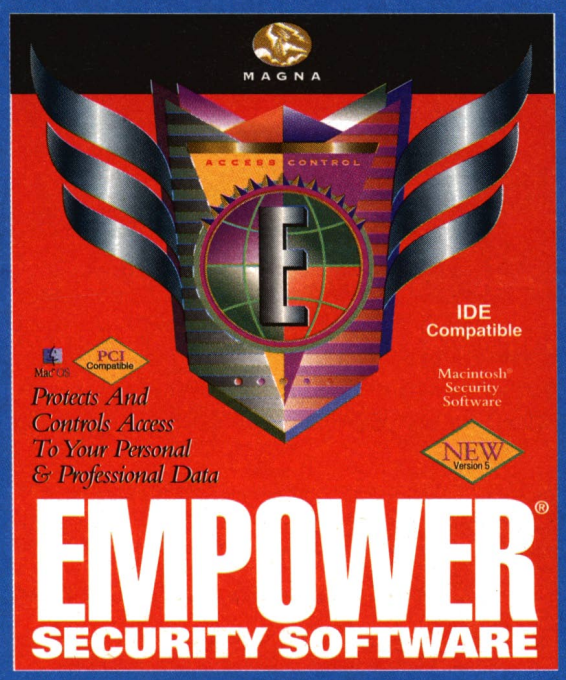

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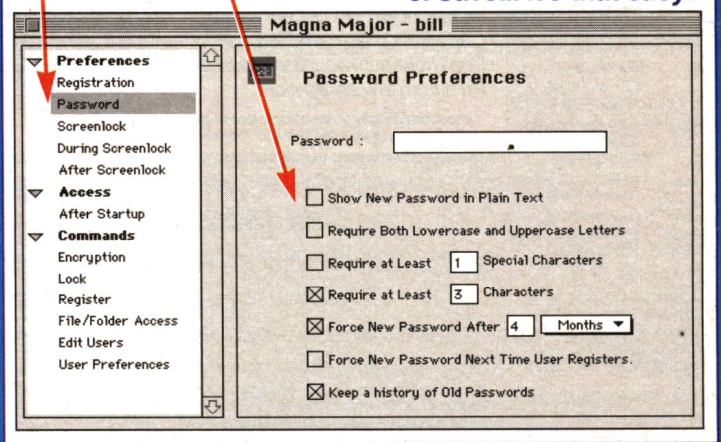

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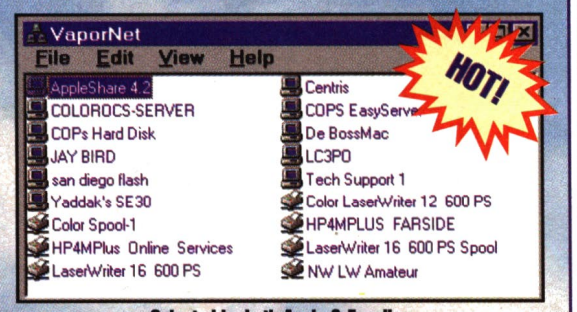

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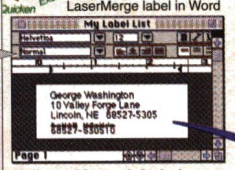

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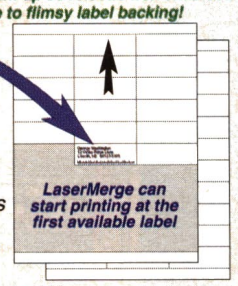

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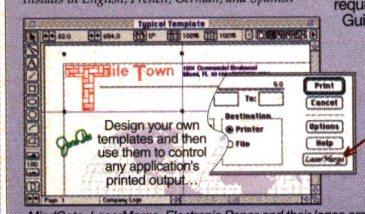

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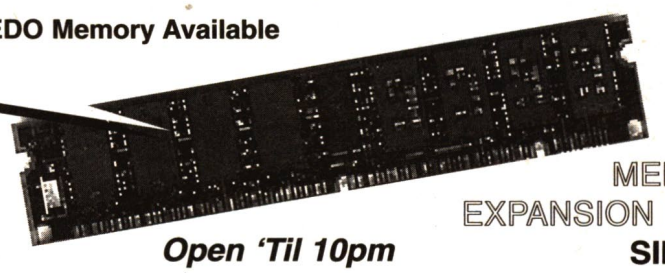

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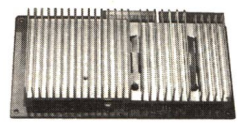

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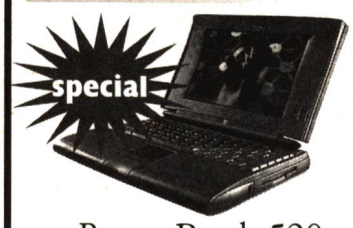

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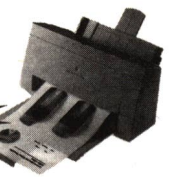

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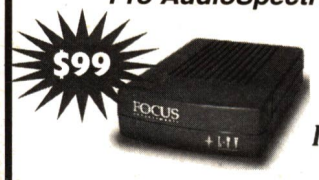

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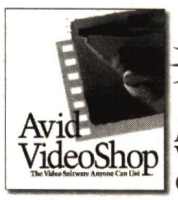

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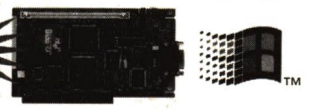

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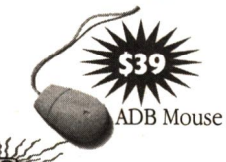

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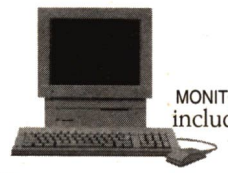

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Mac II or IIx to IIfx	exch. $249
Centris 610 to Quadra 660AV	exch. $249
Quadra 660AV TO PowerMac 6100/60	exch. $649
Quadra 800/840AV to PowerMac 8100/80	exch. $999
Quadra 800 to Quadra 840AV	exch. $299
Quadra 650 to PowerMac 7100/66	exch. $799
LC550 to LC575	exch. $499
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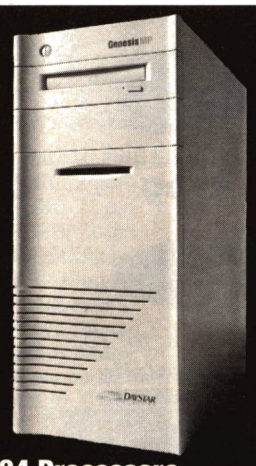

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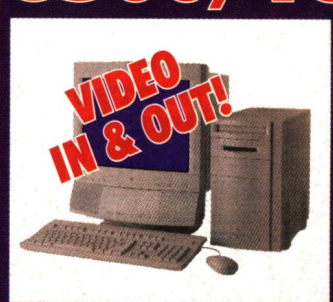

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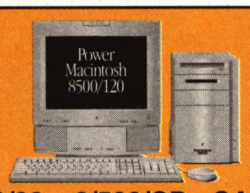

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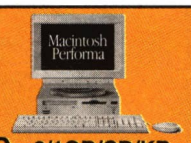

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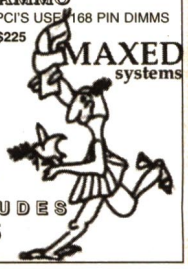

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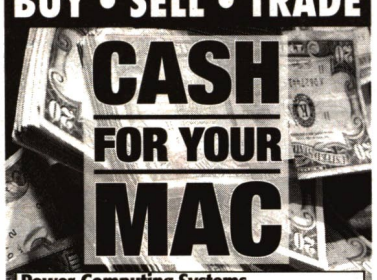

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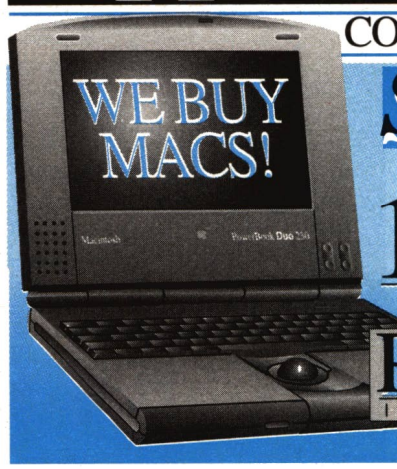

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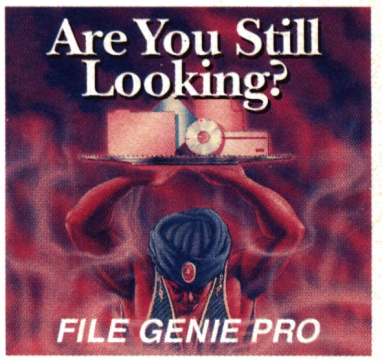

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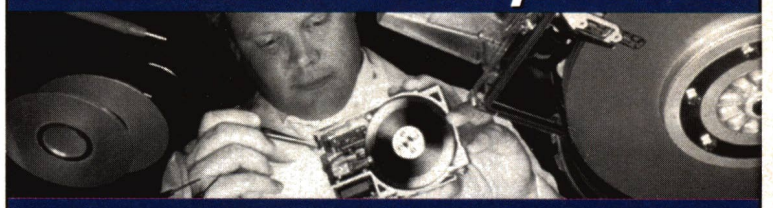

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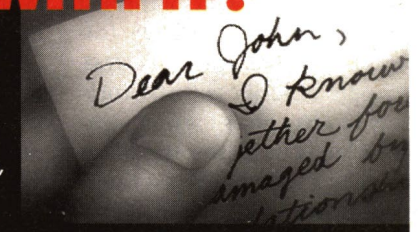

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Copland

From Page 1

cer Ellen Hancock. Caught off guard, lower-ranking officials were speculative and inconsistent when trying to fill in the details. And no one had a clear response to the most pressing question from developers and users: When will Apple ship Mac OS 8's core, microkernel-based technologies, such as protected memory, preemptive scheduling and symmetric multiprocessing plus the new I/O architecture, file system and patching mechanism?

A week later, one thing is clear: Apple can't offer answers to such questions because it simply doesn't have them yet.

Hancock has issued a directive to her engineering team to review the entire project for Mac OS 8, code-named Copland. The aim is to eliminate all unessential interdependencies among its parts, so Apple can deliver to users as many of these technologies as possible, as soon as they are ready (see story, Page 88). Until that process is complete and management digests the results, there are no firm product plans or timetables.

OS milestones

The AppleSoft division's new intent is clear, however. The delivery of Mac OS 8 technologies will now be a multiyear process, rather than a single event like the release of System 7.0 or Windows 95. At some point, Apple will drop the System 7.5 label and call the evolving operating system Mac OS 8. But that change will, in the current conception, be presented as just a milestone along a long, winding road rather than a sharp turn.

As described by Jim Gable, AppleSoft vice president of marketing, the strategy calls for major new technologies to be delivered in semiannual installments that will be classified as releases.

These will be distributed as full, bootable versions of the Mac OS rather than patches that work only atop previously installed system software. Also twice a year, on the quarters between releases, Apple will deliver smaller packages called updates. Typically consisting of two or three floppy disks, according to Gable, updates will be limited to bug fixes and minor feature enhancements.

This strategy is an extension of plans announced in May, when the company said that it would deliver a new version of System 7.5, code-named Harmony, before Mac OS 8. That upgrade remains on tap for January. Contrary to earlier reports, Gable said it will still be known as Harmony.

Its focus has shifted, however. When Harmony was first announced, officials said they hoped to incorporate some Mac OS 8 technologies, most likely parts of the Copland "user experience," or interface. Those enhancements have now been put off until the second 1997 release, scheduled for July.

The January release will bring users up-to-date with the latest, post-System 7.5.3 versions of existing system components. The list of updates to be added includes QuickTime 2.5 and a new Open Transport, but the main focus will be on OpenDoc and Cyberdog, which will for the first time become standard OS features rather than optional extras.

Apple officials said the company has two goals for this package. One is to bolster the Mac's image as a state-of-the-art Internet platform. The competitive pressure is on because Microsoft Corp. is planning a year-end update to Windows 95, code-named Nashville, that will further integrate the Internet into its OS. Apple's other objective is to stimulate the emerging market in third-party Live Objects.

The July 1997 release, which Gable said does not have a public code name, will be the first to incorporate Mac OS 8-specific technologies. As with the original Harmony plan, the most likely candidates are interface innovations, such as spring-loaded folders and pop-up drawers. Apple also said it hopes to make the long-awaited PowerPC-native, multithreaded version of the Finder part of the July release.

But Copland's Appearance Manager — the signature feature that will allow users to choose among a wide variety of desktop styles — may not make the July cut. Its current design, Gable said, makes it partially dependent on lower-level technologies that are not likely to be ready by summer.

The Copland foundation

The plan for next year's operating system releases implies that the microkernel and related enhancements — the technologies that were supposed to make Mac OS 8 a modern, high-performance, high-reliability, multitasking OS that could stand up to competitors such as Windows NT — won't reach users until 1998 at the earliest.

Currently, most of these low-level features are interdependent, so they would have to be delivered in a single release. But Gable and Ike Nassi, senior vice president of AppleSoft, said engineering teams are currently engaged in an intensive effort to find ways to deliver low-level features on an incremental basis.

"When I worked on BSD [Berkeley Standard Distribution] Unix, we used to rip out the kernel on a regular basis, and everything just kept running," Nassi said. "There are a lot of things you can do if you have a strong enough fire wall between the OS and the apps."

In some cases, Nassi added, Apple might decide to scale back features to speed the initial release. But in at least one area — memory protection — Apple is looking beyond the original Copland conception in hopes of finding ways to protect traditional applications as well as faceless background processes.

"It's the subject of very active investigation," Nassi said. "We have people working on a couple of different approaches, and we have not settled on one yet. We know memory protection is important, and we want it as soon as possible." □

DR1 DOA: Apple shelves system release

Along with the announcement of its incremental rollout strategy for Mac OS 8, Apple abruptly canceled plans to seed developers with a preliminary version of the new system, leaving them without the code they need to create Copland-savvy applications.

After several earlier delays, Apple in May committed to deliver the release — known as DR1 but officially titled Mac OS 8 Developer Release: Compatibility Edition CD — this summer. As recently as July 22, Vito Salvaggio, Apple product line manager for system software releases, said the Copland team was making "really good progress" toward that goal.

But an Aug. 8 e-mail message told developers that Apple canceled DR1 because "the concept of shipping this or any other large, monolithic developer release is not consistent with Apple's new software strategy. ... Once Apple has fine-tuned this new strategy based on developer feedback, the company will share a more detailed strategy with developers and the public."

Asked what he would say to developers trying to manage budgets and schedules for development of Mac OS 8 products, Jim Gable, AppleSoft vice president of marketing, said: "That's a hard question, and at the moment we don't have good answers for everyone. At least Live Objects developers know they can get going right now."

Gable said it is only the plans for a broad developer seeding — and not the DR1 code itself — that have been canceled. He said that the "D" in DR1 stands for "development," not "developer," and that work on it continues inside Apple.

He acknowledged that reaction from developers on forums such as Apple's Semper.Fi mailing list has been largely negative. "I can't say we're going to change the plan," he said, "but I can say we read Semper.Fi, we hear the criticism, and we understand."

—By Henry Norr

Microsoft

From Page 1

Microsoft wants to promote its technologies, Ludwig said, including the Internet Explorer Web browser; new programming libraries; and its component architecture, called ActiveX, for use in Mac products.

"The Internet is a huge opportunity, and Microsoft has moved fast to capitalize on it," said Roy Leban, chief technologist at Akimbo Systems of Somerville, Mass. "Microsoft's motivations are the same as for the rest of us: to make money."

Rich Siegel, founder of Bare Bones Software Inc. of Bedford, Mass., said his talks with Microsoft have focused on shared goals. "They did not call us up and say, 'You have to support our product.' They did say, 'Hey, you are doing interesting stuff. Let's see if we can work together,' " he said.

To make inroads into the market, Microsoft created a Mac-centric development team and joined a newly formed group promoting Mac Internet standards.

Ludwig said IPTD's San Jose, Calif., office, nicknamed MS Bay, houses veterans of longtime Mac vendors. This Mac-only group is led by General Manager Don Bradford, a former engineer for Claris Corp. and Aldus Corp. Bradford has been meeting informally with

It's Microsoft, but different. Mac-centric MS Bay has its own logo.

Mac developers since March to leverage existing technology and build support for MS Bay's efforts.

"These guys have come up with a lot of cool technologies," said Chuck Shotton, a fellow at Quarterdeck Corp. of Marina del Rey, Calif., and the primary author of WebStar.

To wit, Bradford said MS Bay is creating an Internet Services Library, a suite of reusable code that it wants Mac Internet developers to adopt. The code handles the most popular Internet protocols: HTTP (Hypertext Transport Protocol), FTP, Post Office Protocol 3, SMTP (Simple Mail Transfer Protocol), Network News Transfer Protocol and Secure Sockets Layer.

The code will be delivered both as traditional Macintosh libraries used by the Code Fragment Manager and as ActiveX parts. Microsoft is creating discrete HTML-rendering code that anyone could license to use for built-in Web display features. Bradford said the company is developing its own Java virtual machine in ActiveX.

Despite reports to the contrary, Mac Internet developers deny they have been offered cash by the Redmond giant. "Microsoft is not offering us any money, and we don't have any expectation of getting it," Bare Bones' Siegel said.

Ludwig and Bradford said Metrowerks Inc. of Austin, Texas, which is working on the Mac implementation of ActiveX, is the company's only business partner in the Mac Internet market.

Microsoft helped form the Macintosh Internet Developer Association (Midas), a consortium of Internet companies. The group was formally announced at Macworld Expo this month with the goal of helping Internet companies collaborate on standards for Mac-based software and as a clearinghouse for information. The group comprises 14 vendors, including Akimbo, Apple, Bare Bones, InterCon Systems Corp., Maxum Development Corp., Netscape Communications Corp. and ResNova Software Inc.

Dave Winer, president of UserLand Software Inc. and a Midas member, said that in the group "developers can discuss ideas, provide support and ratify standards that can then be added to products." □

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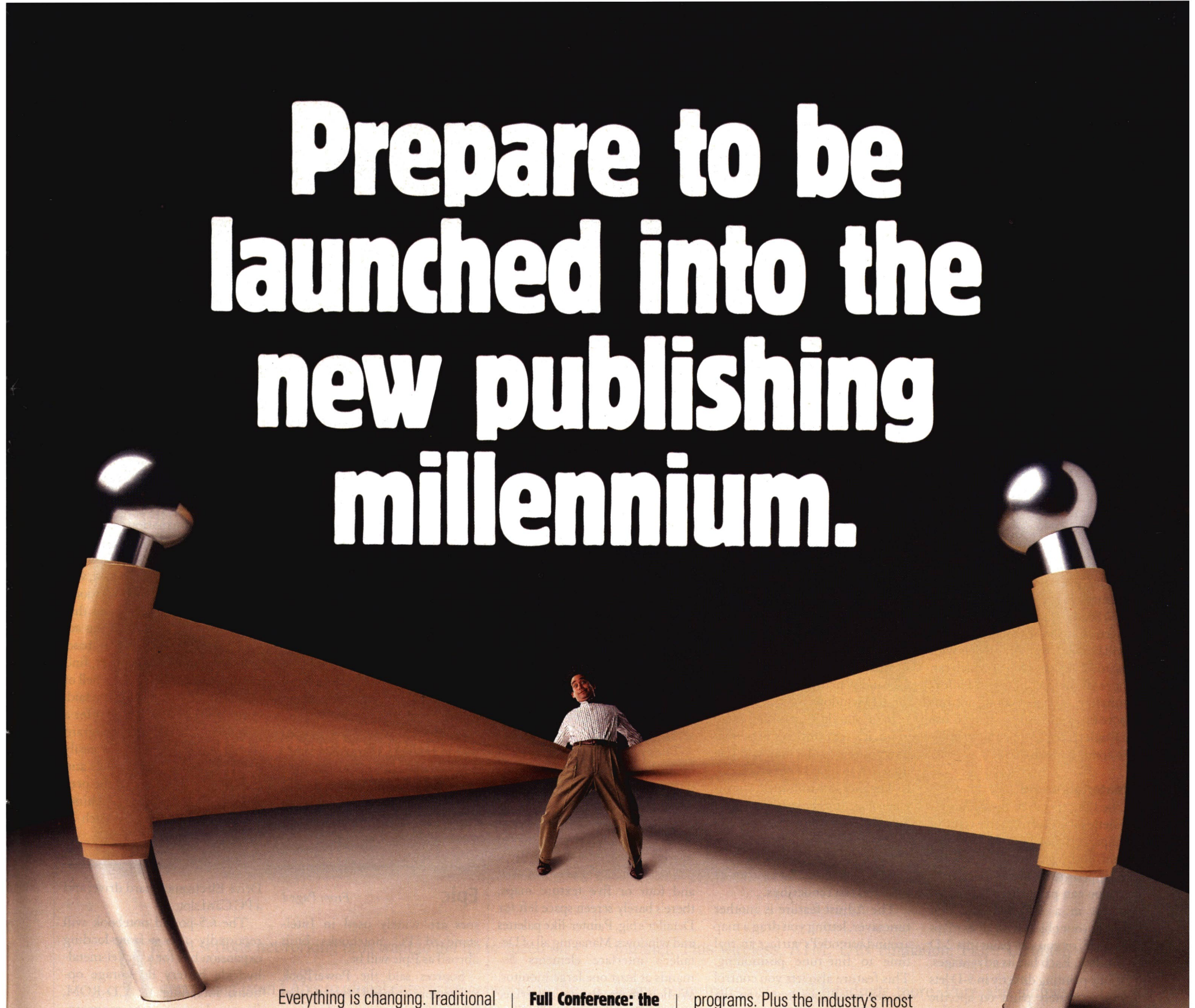

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Detailer

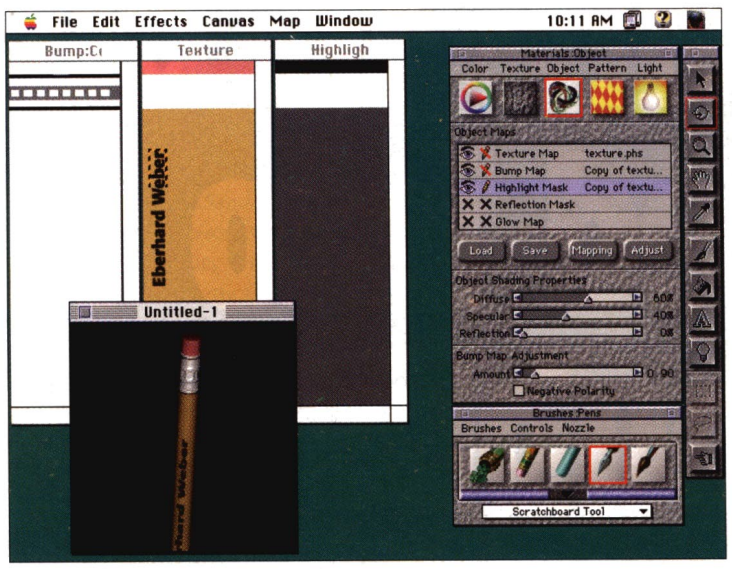
From Page 1

wrapped around your model. With Detailer's real-time painting, you can see immediately where the details of your map will appear on the model.

You paint directly onto 3-D objects using natural media tools, textures and multilayered painting effects borrowed from Fractal's Painter. All that's missing from Painter's tool set are the onion-skinning and QuickTime features; these would be useful for creating animated texture maps.

Texture, bump, reflection, highlight and transparency maps can all be created easily and positioned in real time on an object's surface. Detailer lets you save your maps for use in other 3-D programs or will render a final image directly within the application.

You begin by importing a model in 3DMF (3-D metafile format), Ray Dream Designer or 3-D Studio for Windows formats. According to Fractal, Detailer will be able to import models with up to 32 objects, each of which can have its own set of maps. Unfortunately, our beta could not import or export, so we had to use Detailer's built-in primitive tools to create basic shapes.



We built this model of a pencil in Fractal's Detailer. The Materials palette, which should be familiar to Painter users, contains a new tab for controlling maps.

Materials world

The Objects tab of the Materials palette lets you create five types of maps. A dialog box allows you to control how the map will be wrapped around your image.

You can paint directly onto an object in a 3-D window that shows your object with all its maps applied, or you can paint in a 2-D window. Each has its advantages. While painting directly in 3-D lets you accurately paint on specific parts of a map, painting in 2-D lets you paint over the whole surface of the model, not just the part currently visible. Either way, your strokes are immediately mapped onto the surface of the 3-D object.

Detailer's painting performance was impressive, even in beta. We tested the program on a Power Mac 7500/100 and found its tools responsive and the 3-D redraw speed acceptable. But we'd like to be able to disable the automatic updating of the 3-D window; it greatly slows down painting operations involving lots of strokes.

Although the 3-D painting is cool, you'll spend much time rotating and moving your object to paint on different parts, making for lots of extra clicking. We spent most of our time painting in 2-D and watching the updates in the 3-D window.

In a standard painting program, it's very difficult to predict how the seams of a map will line up when mapped onto an object. In Detailer, an unfolded, mesh-view of an object can be projected into the 2-D views, so you can easily see how the different sides of the map correspond to each other. This alone saves a lot of time and test renderings.

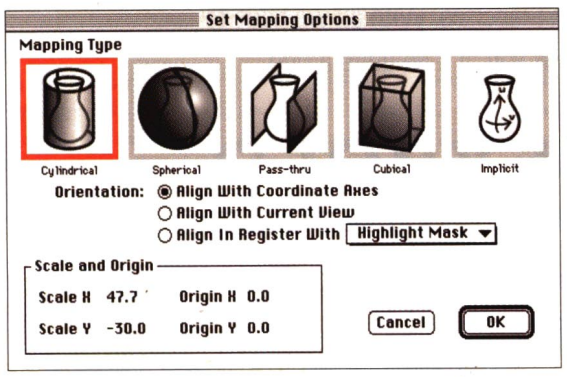
The Adjust feature is another timesaver, letting you drag a map around a model's surface in real time to fine-tune positioning. This feature also lets you control the seams of your map; you can specify how they stitch together on the surface of your model.

Veteran 3-D artists will most likely use Detailer to create maps for use in other programs. You can save in a number of raster formats, including PICT, Adobe Photoshop and Fractal's RIFF. Once exported, you can load them into your renderer of choice and use its controls to create a final rendering.

If you don't have a separate rendering program, you can render a final image from within Detailer. But you'll be hampered by one of the program's biggest weaknesses: the lack of sophisticated navigation and viewpoint controls. A single trackball control is the only way to specify the contents of the 3-D view. Besides rotating objects, there's no way to navigate about your scene to establish an exact perspective. We'd like a more comprehensive set of navigation and 3-D controls.

The rendering quality is adequate, however, and you can render objects with alpha channels for easy compositing.

Detailer's other obstacle, inherited from Painter, is its cluttered, unwieldy interface. By the time you've opened a model window and four or five texture maps, there's barely screen space left for Detailer's big, Painter-like palettes and windows. Managing all of Detailer's interface elements demands at least one large monitor. We hope that as Painter's interface evolves the changes will filter down to Detailer.



Detailer's Mapping dialog box lets you control mapping type as well as registration with other maps.

Conclusions

Our biggest concern for high-end 3-D work — whether or not Detailer can handle large geometries and texture maps — remains untested, because of our beta's lack of import or export capability. But so far, what we've seen is exciting. Detailer eliminates much of the guesswork and time-consuming test renderings from the process of creating texture maps. And, because of its Painter-based controls, it's not lacking for graphics effects. Detailer will be more useful for 3-D users, but 2-D illustrators will find it good for creating simple 3-D effects.

Fractal Design Corp. of Aptos, Calif., can be reached at (408) 688-5300 or (800) 297-2665; fax (408) 438-9671; http://www.fractal.com. □

Channel, ads to split Roizen's $20M purse

By Leander Kahney

Apple recently revealed how it will spend $20 million it set aside this spring to promote third-party Mac developers. CEO Gilbert Amelio promised the money in May at the Worldwide Developers Conference in San Jose, Calif.

Apple executives said the cash will be divided almost equally between its U.S. and worldwide operations. While a portion will be used for a new developer marketing Web site, most will be split evenly between a global advertising campaign highlighting third-party software and a program to increase the profiles for Mac products in retail stores.

Jonathan Fader, Apple director of developer marketing, said Apple will address two related issues: increasing the visibility of developers' products and increasing their availability. "There's a lot of confusion about what's out there and where to go to get it," he said.

Apple said it will work with major retailers to reverse practices such as failing to promote and properly label hybrid CDs and to improve retail displays. "We need to make them much more evident," Fader said.

According to Fader, Apple will spend about half the money advertising third-party products in a print campaign slated for the holiday buying season. The promotion will direct buyers to toll-free customer support numbers as well as the new marketing Web site, unveiled this month.

The site will show customers available products and different purchasing channels, including mail-order suppliers.

Fader said the Web site will also benefit developers. It will provide information on co-marketing opportunities, software bundles and trade shows.

According to Heidi Roizen, vice president of developer relations, Apple will expand programs that nurture developers, including access to Apple's customer database, and help small developers find venture capital. "We have a hell of a due diligence team," Roizen said.

In addition, Apple will offer a year-long CPU leasing program so that developers can more easily keep pace with new models and technologies. Fader said the program will also provide machines for short-term projects, such as trade shows. □

Epic

From Page 1

sors are widely used in Intel-standard PC notebooks built abroad as Epic will be.

Sources said the PowerBook will feature a hinged keyboard that lifts up, letting users easily access the logic board for RAM and CPU upgrades. Unlike current PowerBook designs, Epic will reportedly use expandable "piggyback" RAM modules, sources said, so users can add RAM incrementally. Sources said Apple will ship systems with either 12 or 16 Mbytes of RAM; Epic will support up to 64 Mbytes.

Epic will also reportedly provide book covers, removable plastic lids that clip on the top side of the screen. Apple and third-party vendors will reportedly offer a variety of covers, including a clear panel that lets users slide in printed material. In addition, the model will come with software for designing custom book covers.

Epic models will come with either a 11.3-inch TFT (thin-film transistor) or dual-scan, passive-matrix color display; 1 Mbyte of video RAM; a 750-Mbyte or 1-Gbyte Enhanced IDE (Integrated Drive Electronics) hard drive; and a PC Card slot.

The 6.5-pound notebook will reportedly offer a front-loading expansion bay for a nickel-metal-hydride battery or storage options, including 6x CD-ROM, floppy, Iomega Zip, magneto-optical or hard drive mechanisms, as well as a slot for adding Ethernet or video-out capabilities.

While pricing has not been set, sources said configurations will include a $2,500 entry-level model with 12 Mbytes of RAM, a 750-Mbyte hard drive and a dual-scan color screen. A similar system with 16 Mbytes of RAM and a CD-ROM drive will cost about $3,000, and a fully loaded model with an active-matrix screen will be $3,700.

Sources said a laptop code-named Hooper will follow Epic. That system, reportedly due early next year, is expected to run at speeds between 180 and 200 MHz and offer a larger screen, a PCI slot, direct-to-screen video playback and stereo speakers.

Apple declined to comment. □

Joanna Pearlstein contributed to this report.

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Hancock on OS updates

CTO promoted distribution plan

By Stephen Howard

The epicenter in Apple's OS strategy shake-up is coming from the office of Ellen Hancock, the company's recently hired chief technology officer. With responsibility for AppleSoft, AppleNet and Apple Research Laboratories, Hancock is setting the direction for Apple's most-prized asset: its software.

MacWEEK interviewed the CTO in July, soon after she had completed her first thorough technical review of Mac OS 8, code-named Copland.

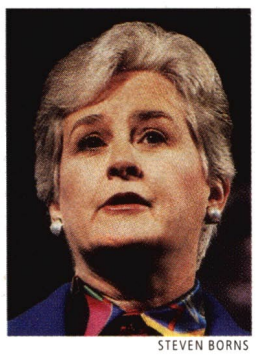
"I woke up this morning thinking about Copland," she said.

In discussing the issues that would define Apple's operating system strategy, Hancock repeatedly said she was comfortable with the process of issuing quarterly OS updates; she has done it before in the software divisions she controlled at IBM Corp.

"It's a standard thing to be doing — to periodically either refresh or to go back in with [what] IBM used to call PTF updates," Hancock said.

Delivering such updates poses a logistical problem, however. Hancock said she has considered downloading them to users' Macs automatically, similar to the process used today by the America Online and Prodigy online services.

"Periodically they do an update, and when you log on they just say, 'Excuse me, but we'd like to send it to you now.' There are all different ways one can get updates, and I'm reasonably committed to that process."



STEVEN BORNS

Apple Chief Technology Officer Ellen Hancock

She characterized the quarterly update plan as evidence of Apple's renewed focus on quality. "It's not a negative quality statement," Hancock said, characterizing frequent software updates as a service to customers. "All of us in the industry are dealing with how you get code changes to customers once you have a base out there. And the more successful you are, the more complex the discussion is."

Despite Apple's intentions to release more OS updates, Hancock played down the Mac OS' role as the primary means of delivering new technology. "I do think that we've done too much packaging into the OS and that there should be more options relative to components of the software," Hancock said. "I want those components to run on multiple different systems and not just the Mac OS."

Potentially cross-platform technology is "being held hostage" when it runs only on the Mac, Hancock said. "I'd free some of that up."

While having some proprietary technology is key to a successful business, she said, wider partnerships are also a requirement. "We can't just say, 'I'm going to stay here on the Apple campus, and I'm going to ship when I want to ship, and I'm going to ship what I want to do,' " she said. "It just doesn't work that way anymore." □

Photoshop

From Page 1

Sources said Adobe has not yet frozen Version 4.0's feature list, but they predicted that changes to the program's interface will probably ruffle some feathers. Command-key equivalents have reportedly been altered, tools have been moved, and work flow will change for most users.

According to sources, 4.0's most dramatic change will be Free Transform, an item in the new Layer menu that incorporates movement, perspective, scaling, rotation, distortion and skewing into a single tool. By holding down modifier keys, users will reportedly be able to change the tool's behavior. For greater precision, measurements can also be entered numerically.

The layer system that debuted in Version 3.0 will get some modifications. Users will be able to manipulate, link or transform noncontiguous layers or selections, sources said, and Command keys will move layers up and down within a list.

New Adjustment layers will speed global changes to multilayered files, sources said. Similar to layer masks, Adjustment layers will affect only the layers beneath them; they will let users perform tasks such as color correction. The Adjustment layers themselves can be manipulated via filters or compositing effects.

Sources noted that several elements from Photoshop's Windows 95 version are creeping into the Mac interface, such as a 3-D shaded look and contextual menus. As in Windows, these pop-up menus will appear when users press the Control key and click on specific areas.

Photoshop buffs have long requested grids and guides, and their wishes will come true with Big Electric Cat. Like those in Adobe Illustrator, Photoshop 4.0's grids and guides can be solid or dashed lines as well as dots, and users will be able to set guide colors, sources said.

Photoshop 4.0 will also feature several cosmetic changes. A new Navigation palette will display a preview of an entire file and highlight the on-screen portion of the image, sources said. If users click on a region of the preview while pressing the Command key, the display will jump to that area.

Despite earlier rumors that Adobe would fully support AppleScript in Photoshop 4.0, sources said the company instead plans to implement a proprietary automation system for some operations. A new Actions palette will record users' actions, then play them back like a macro. Users and third parties will be able to create Actions to batch-process files and to script filters or mode changes. Sources said the Actions palette may still not make it into the final release, however.

Sources said all third-party filters will be segregated to the bottom of Photoshop 4.0's filter list, and Adobe's Gallery Effects filters will be incorporated into the application itself. Adobe Illustrator plug-ins will not be supported in 4.0, sources added.

Several minor tweaks will make a big difference for hardcore Photoshop fans. Instead of the familiar zoom ratios, users will now type a percentage of the window size.

Sources said it's too early to tell whether Version 4.0 will be faster than Version 3.0, and pricing information is not yet available.

Adobe declined to comment. □

Matthew Rothenberg contributed to this report.

Office

From Page 1

the first quarter of next year.

Among the enhancements users requested is a backward-compatible file format so current versions of Office will be able to read files created with newer ones. For power users, Microsoft will add the Visual Basic for Applications (VBA) language to all of the suite's components. On the Mac, VBA is currently available only in Excel 5.0; Word has its own WordBasic scripting tools, which will be supplanted by VBA in 1997.

In addition, the upgrade will include a batch-mode installer that can upgrade multiple Macintoshes on a network from a single workstation.

According to Meltzer, Office 97 will implement Internet features across the suite. "The Internet will be an extension of the desktop," he said. Links to Web browsers and e-mail are being built into Microsoft's Windows and Mac core code, he said, rather than through platform-specific add-ons.

Specifically on the Mac, Office will work with Apple operating system technologies, including QuickDraw 3D and QuickDraw GX; Mac OS 8, code-named Copland; and Macintosh Drag and Drop, Meltzer said.

Office 97 will also extend the Tip Wizard help system and rename it Office Assistants, which will automate tasks as well as teach users advanced features.

While the Mac market accounts for only 2 percent of Microsoft's total revenues, Meltzer pointed out the company has 30 different Mac applications, used by roughly 8 million users.

And more programs are coming: Microsoft is readying Version 7.0 of Schedule+, its group calendaring program, and Exchange Client, a messaging client for Exchange Server 4.0. Exchange Client, Meltzer said, will allow formatted text messages as well as extensive mail-filtering capabilities, such as grouping and viewing messages based on access privileges as well as verifying authenticity with digital signatures. □

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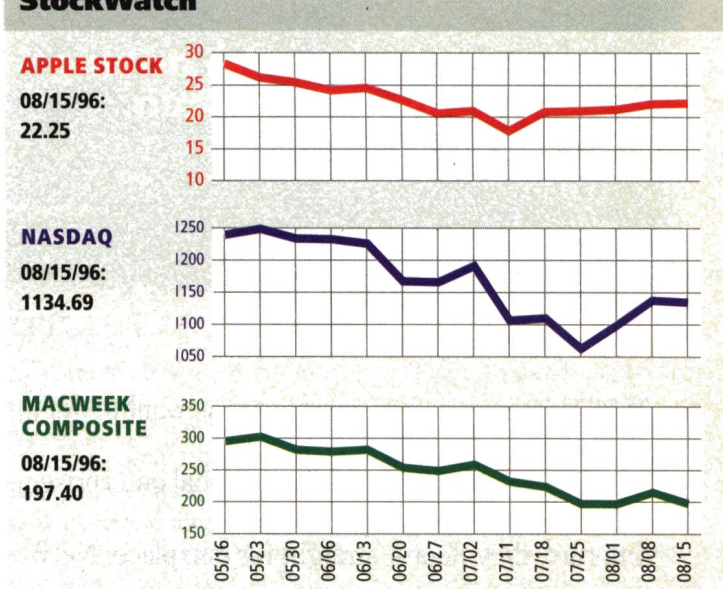

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Firefly chips to light way for FireWire

By David Morgenstern and John Poultney

Several engineers from Apple's FireWire team last week punched out and formed Firefly Inc., a start-up company that will design chip sets and offer peripherals vendors help with the interface.

Firefly Chief Technical Officer Michael Teener was one of Apple's lead architects for IEEE 1394, or FireWire. An eight-year Apple veteran, Teener saw the technology through its development and standards process.

Other former Apple engineers joining the Scotts Valley, Calif.-based company include Bill Duckwall and Jay Hamlin, directors of hardware and software, respectively. Duckwall worked on FireWire for Apple, and Hamlin was a Pippin software engineer.

The company will develop FireWire chip sets and testing equipment as well as interfaces for computer peripherals such as printers, modems and cameras. "We see a huge opportunity," Hamlin said.

The FireWire interface is shipping on only a few peripherals, including Sony Corp.'s DCR-VX camcorders. However, over the next year, FireWire is expected to ship with digital camcorders, tape decks and Digital Video Disc players for consumer and professional markets.

Apple is also turning up the heat with its own FireWire plans. The company recently hired an evangelist for the technology, and at this month's Macworld Expo in Boston it demonstrated a PCI Mac with Adobe Premiere editing digital video captured from an unreleased color Sony teleconferencing camera. It also printed images with a prototype model of Epson America Inc.'s Stylus Pro XL color inkjet printer.

In addition, Apple said it will release a FireWire PCI card in the first half of 1997.

In other FireWire news at expo, Adaptec Inc. of Milpitas, Calif., released its 1394 FireWire O/S Developer Kit. The $599 package includes Adaptec's AHA-8940 1394 PCI card and source code for cross-platform drivers (see 07.22.96, Page 6).

In its expo demonstrations, Apple used the Adaptec card as well as two unreleased designs from Texas Instruments Inc. □

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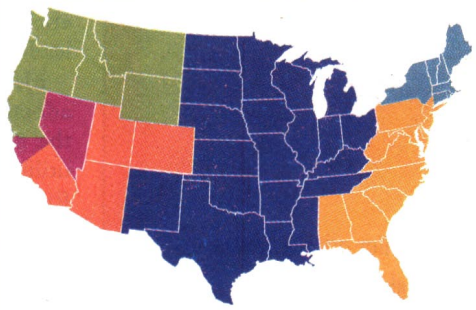

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Down and out in San Diego

Raised with the progressive values of a true red-napkin baby, the Knife was at first inclined to dismiss the conciliatory noises at last week's Republican National Convention in San Diego. Truth be told, he tuned in to the party naively convinced that the GOP's Big Tent would prove to be nothing more than camouflage for enough jackbooted high jinks to rival the 1936 Summer Olympics.

Blissfully, the multiculti feel-good session in Diego has set the Knife straight: The GOP is, in fact, a zesty, polychrome goulash of diversity and forbearance.

In the spirit of that revelation (and as a recovering Southern Californian himself), the Knife would like to recommend some San Diego byways that might help lingering conventioneers put their newfound tolerance to the test.

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Emilio's Cafetería Músical (Tijuana)

Newly enlightened Republican delegates might want to try out this Tijuana institution off Revolución's main drag: a coffeehouse and gay-community hangout where electric guitars are open to all comers and even straight boys can join the jam sessions that continue until 3 a.m. or so. Just the kind of place where Pat Buchanan might want to bring his longtime companion, sister Bay, for a night of fun and frolic.

Emilio and Co.'s brand of amphetamine-fueled mariachi music may come as no surprise to Mac aficionados, who are perhaps more inured to fast times in the big city than, say, Sen. and Mrs. Thurmond.

Take the latest speed boosts due from UMAX and *último jefe* Apple. According to a couple of guys named Chuy, UMAX will rev the top of its line to 300 MHz one of these fine days. Meanwhile, Apple is planning to pump up the volume of its new Performa 6400 to 220 MHz in November, up from the box's current top of 200 MHz. *¡Ay, caramba!*

ISKCON Temple (Pacific Beach)

If Sen. and Mrs. Helms can handle its non-smoking policy, the local Hare Krishna temple's nightly feast and dance party seems like a great place to work off some post-primary bloat. The Knife recommends the free vegetarian goodies and the hours of invigorating chanting before a lifelike effigy of the group's late guru, Srila Prabhupada.

And speaking of undead icons: The Knife has received word from die-hard Copland devotees that the late, lamented DR1 was actually finished on July 26, just in time to be rendered obsolete by the new era of Harmony. The build now sits in a lead-lined vault beneath Apple HQ.

Meanwhile, some Web junkies have adopted the mantra "Myrmidon." That's the name of the hot HTML-conversion utility from Terry Morse Software Inc. Rumor has it the software will serve as an avatar for similar Chooser-based capabilities in a future version of the Mac OS.

Chicano Park (San Diego)

Will ironies never cease: The GOP's consciousness-raising session in the San Diego Convention Center was within walking distance of Chicano Park, a *samizdat* cultural landmark dedicated to mural art, handball and multicolored bandannas.

Now that their bandwidth has been expanded to encompass *todo el pueblo,* Rep. and Mrs. Gingrich No. 2 might find themselves in greater sympathy with the Chicano activists who first created the eye-catching Aztlan Nation artworks that brighten up this gritty corner of town.

Speaking of angry constituents: QuickMail users are reportedly up in arms over CE Software's move to embrace Internet standards. It seems that CE's plans have put a damper on long-awaited TCP/IP access for Mac and PC clients. Earlier statements to the contrary, access won't be offered for the standard LAN version of the e-mail package. □

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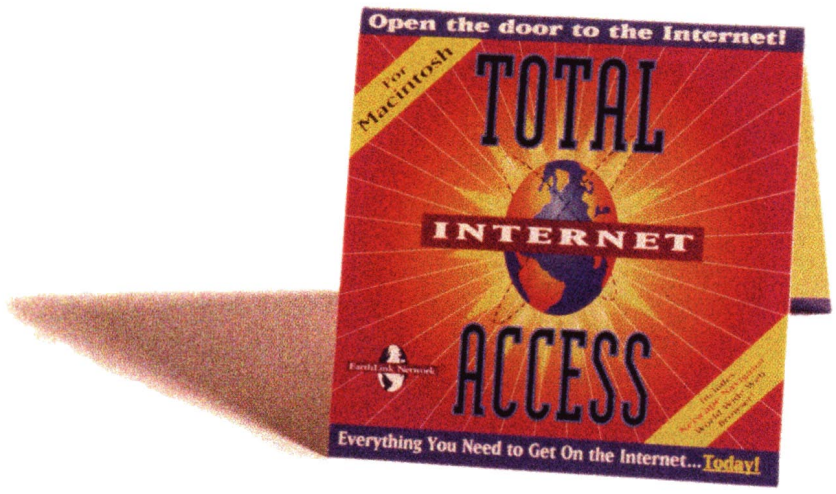

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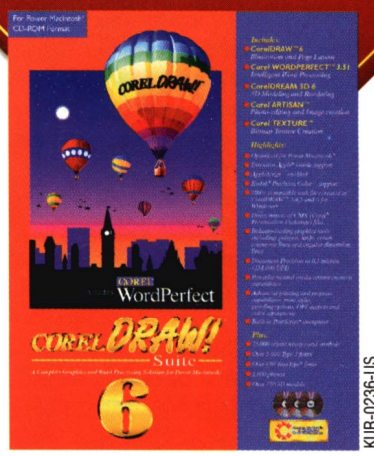

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